134-260

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1888.

No. ~~926~~. 63

THE HENDERSON BRIDGE COMPANY, PLAINTIFF IN ERROR,

vs.

WALLACE McGRATH, MATTHEW SPELLACY AND EDWARD RYAN.

IN ERROR TO THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF INDIANA.

FILED AUGUST 26, 1886.

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1 Pleas in the circuit court of the United States for the district of Indiana, begun and holden at the United States courtroom, in the city of Evansville, in said district, on the first Monday of October, in the year of our Lord one thousand eight hundred and eighty-five, before the Honorable William A. Woods, judge of the district court of the United States for said district and *ex officio* one of the judges of said circuit court.

Be it remembered that heretofore, to wit, on the 8th day of June, A. D. 1885, there was filed in the office of the clerk of said court a transcript in the words and figures following, to wit:

2 State of Indiana, *Vanderburgh County:*

In the Vanderburgh Circuit Court. May Term, 1885.

Pleas begun and held in the Vanderburgh circuit court, at the courthouse, in the city of Evansville, county of Vanderburgh and State of Indiana, on the first Monday in May, 1885, to wit, Monday, May the 4th, 1885, when present the Honorable William F. Parrett, judge of the first judicial circuit of the State of Indiana.

Be it remembered that heretofore, on the 24th day of April, 1885, a complaint was filed; which complaint is in the words and figures following, viz:

Complaint.

3 In the Vanderburgh Circuit Court. May Term, 1885.

Wallace McGrath, Mathew Spellacy, Edward Ryan
vs.
The Henderson Bridge Company.

The said Wallace McGrath, Mathew Spellacy, and Edward Ryan, who are copartners under name of McGrath, Spellacy and Ryan, complain of the defendant, The Henderson Bridge Company, and for cause of action say that said Henderson Bridge Company is a corporation duly organized under the laws of the State of Kentucky for the purpose of building a bridge over the Ohio river from the city of Henderson, in the State of Kentucky, to the Indiana bank of
said river, and to build a railroad with proper embankments
4 over the low grounds of the Indiana side of said line,
and so as to make a connection at the city of Evansville with other railroads; that said Henderson Bridge Company is indebted to the plaintiffs in the sum of twenty-three thousand six hundred and sixty-seven dollars for work and labor performed by the plaintiffs and material furnished by them in building the said railroad of the defendant between the city of Evansville and the city of Henderson, as follows: On or about the 1st of July, 1884, said Henderson Bridge Company having advertized for bids for the construction of said railroad and making

the necessary embankment, excavation, graduation, tressle-work, masonry, and other work necessary to build said railroad, the plaintiffs made to the defendants a bid in writing for doing certain work in building said railroad. Said bid or proposal was left with the
5 defendant, and the plaintiffs have no copy of the same and
cannot file a copy. Said bid or proposal was made upon the profile and specifications for building said railroad which were then on file in the office of said company. A copy of said profile and of said specifications is herewith filed. In and by said bid the plaintiffs offered to do work and furnish material in building said railroad, according to said profile and specifications, as follows: For making the necessary excavations, as shown by said profile and specifications, on sections one (1) to seven, inclusive, of said railroad, eighteen cents for each cubic yard of such excavation; for making embankment for said railroad, according to said profile and specifications, eighteen cents per cubic yard for all embankment upon section seven (7) of such railroad; sixteen cents per
6 cubic yard for all embankments on section six (6); fourteen
and one-half cents per cubic yard for all embankments on sections five (5) and four (4); thirteen cents per cubic yard for all embankment on section three (3), and twelve cents per — yard for all embankment on sections two (2) and one (1) of said railroad; thirty cents per lineal foot for all piling and twenty-eight dollars per thousand for all timber put into tressle-work, as shown by said profile, and three cents per pound for all cast iron and four cents per pound for all wrought iron used in said tressle-work, and twenty dollars per thousand for all brick put into masonry on said sections one to seven, inclusive. The defendant accepted said proposal of the plaintiffs by a letter duly sent by the defendant to the plaintiffs, of which the following is a copy:

THE HENDERSON BRIDGE COMPANY,
LOUISVILLE, KY., *July 23rd*, 1885.

7 Messrs. McGrath, Spellacy & Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and tressling of the Henderson bridge railroad from station zero to *to* station three hundred and thirty-three (333), in accordance with our specifications, is accepted. This comprises all the work of the above character from sections one (1) to six (6), inclusive, and a portion of section seven (7). It is underst*and* that piles used — to be round with bark taken off; stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet apart between centers, as I may hereafter elect. In the former case cross-ties are to be eight (8) by eight (8) inches, ten feet (10) long; in the latter six (6) by eight (8) inches, nine feet long; otherwise construction is to be as per standard plan. It is
8 also understood that should it be deemed desirable the
amount of tressling on these sections, shown on profile exhibited at letting, may be reduced without effecting prices named. I am unexpectedly called from the city this evening and will not

be able to prepare contract for signature before leaving; will have it drawn up in the course of a week and send you for signature. In meantime you can proceed with the work the same as if contract had been duly executed.

Yours truly,
F. W. VAUGHN,
Chief Eng'r.

No contract was ever drawn up by the defendant or executed by the parties, except such contract as was made by said bids and the acceptance thereof.

9 Under the directions in said letter and under the supervision of the engineers of the defendant, the plaintiffs have done and performed all things to be performed by them under said agreement with the defendant for the grading, embankments, and excavations upon said seven sections of said railroad and have finished said work, and the defendant has duly accepted the work of these plaintiffs and received it, and have laid their track upon the embankment of said railroad, and are now using the same. In doing said work the following quantities of earth were put into embankments on the several sections of said railroad, and for which the plaintiffs are entitled to recover the following sums of money from the defendant, viz:

1,762

Section 1,	1,702 yards, at 12 cents	211	44
Section 2,	10,537 yards, at 12 cents	1,264	44
Section 3,	28,689 yards, at 13 cents	3,729	57
Section 4,	67,908 yards, at 14½ cents	9,846	56
Section 5,	75,271 yards, at 14½ cents	10,914	29
Section 6,	79,824 yards, at 16 cents	12,771	84
Section 7,	36,990 yards, at 18	6,658	20

10 In addition to the embankment above stated, which was made by the defendants under their bid in accordance with said specifications and profile, the plaintiffs made embankments for road crossings under the following circumstances and under the following agreement, viz:

11 The defendant would not inform plaintiffs what kind of crossings should be made at the intersections of the different highways with said railroad, but required the plaintiffs to go and finish the railroad embankment without making any road crossings over said railroad, and plaintiffs did finish said embankment without making said crossing. The defendant then required the plaintiffs to make a solid embankment of earth on one side of the railroad embankment at the intersections of the highways which crossed said railroad, and the plaintiffs then declined to make such road-crossing embankments for the reason that they were not called for by the profile or specifications and for the reason that the cost of making them was much greater then if they had been made at the same time with the railroad embankment, and thereupon the defendant agreed that if plaintiffs would make such embankments for highway crossings that defendant would pay *defendants* what it

was reasonably worth to make said road-crossing embankments and such other embankments as were not shown, described, or contained in the profile and specifications. Under such agreement the plain-
tiffs made embankments for such highway crossings and in
12 other ways which contained the following amounts of cubic
yards of earth, and the making of which was reasonably
worth the following-named sums, viz:

On section 1, 10,886 yards, at 25 cents	$2,721 50
section 2, 17,890 yards, at 40 cents	7,150 00

The plaintiffs further say that on section 2 of said work the defendant did not procure a right of way of sufficient width so that the embankment could be made by borrowing earth from the sides, and it was necessary to haul a large portion of the earth for said embankment a long distance. In consideration of said fact the defendant, after it found that it could not purchase such right of way of a proper width, agreed that it would pay plaintiffs for all such
earth on which such long haul was required what the same
13 was reasonably worth; that such long haul was required on
17,890 cubic yards of earth, and the reasonable worth of put-
ting the same into the embankment was 25 cents per cubic yard.

Plaintiffs further say that defendant required plaintiffs to take the earth for making the embankment on the greater portion of section 1, not from the sides of the embankment, but from a distance of from 600 to 1,000 yards from the embankment; that plaintiffs refused to do said work by taking the earth from such distant places, and thereupon defendant agreed that if plaintiffs would haul the earth for said embankment from the place designated by defendant defendant would pay plaintiffs for all earth so hauled and put in said embank-
ment 25 cents per cubic yard for all said earth; that there-
14 upon plaintiffs agreed to said proposition, and under said
agreement they put into said embankment 10,886 cubic yards
of earth, which, at said price, amounts to $2,721.20.

Section 3, 697 yards, at 35 cents	$243 90
Section 3, 1,100 yards, at 40 cents	440 00
Section 4, 2,409 yards, at 35 cents	843 15
Section 5, 3,791 yards, at 40 cents	1,516 40

The plaintiffs further show that under their accepted bid, as above shown, they made for the defendant the following amount of excavation:

On section 1, 679 yards, at 18 cents	$122 22
" section 2, 633 yards, at 18 cents	113 94

After such work was in progress the defendant changed the plan of their railroad as to its construction by requiring a continuous
ditch to be made along the foot of the easterly side of their
15 railroad embankment along the whole of the work let to
plaintiffs, and so that water would flow in such ditch from
one end to the other end thereof. The plaintiffs when called on to

make such ditch declined to do so for the reason that no provision was made for it in the profile and specifications upon which their bid was based, and for the reason that the making of the excavations for such ditch would be much more expensive per cubic yard then the excavations contemplated in the profile and specifications. Thereupon it was agreed by the defendant that if plaintiffs would make such ditch they should receive for their work, in so making it, the price at which they had bid for excavations, viz., eighteen cents per cubic yard for all the earth removed in making such
16 ditch, without reference to the fact that part of the earth taken
from said ditch would be used in the embankment and would also be estimated and be paid for as embankment. Under such agreement the plaintiffs made such continuous ditch, and the measurement of the same as made by defendant and as the measurement was in fact was as follows, and the plaintiffs are entitled to recover for said work the following amounts, viz:

On section 3, 5,235 yards, at 18 cents	$942 30
" section 4, 6,635 yards, at 18 cents	1,194 30
" section 5, 9,916 yards, at 18 cents	1,784 83
" section 6, 13,975 yards, at 18 cents	2,505 50
" section 7, 1,499 yards, at 18 cents	269 82

And the reasonable cost, expense, and worth of such work in making said ditch in addition to any ditch shown by said profile and specifications was the sums above stated, and in addition
17 to all the excavations above stated the plaintiffs did other
exca-tion in the building of said railroad which was not included in their bid for the work, and for making which the defendant agreed to pay the plaintiffs what the same was reasonably worth. Under such agreement the plaintiffs made excavations of 2,887 cubic yards of earth which was reasonably worth twenty-five cents per yard, or $721.75 in all.

The plaintiffs further show that under their proposal, as accepted by the defendant, they made masonry as follows, viz: They laid 42,805 bricks, which, at the contract price at $25 per thousand, amounts to $856.10; and they laid 395 lineal feet of drain pipe, which, at the agreed price of 25 cents per lineal foot, is $98.75. The bid for laying such drain pipe was a separate one, made by the
18 plaintiffs and accepted by the defendant, in writing, of which
the following is a copy:

LOUISVILLE, *July 8th*, 1884.

F. W. Vaugh, Esq., chief eng'r the Henderson Bridge Co. R. R.,
Louisville Ky.

DEAR SIR: We hereby propose to put in all the concrete required on sections one (1) to seven (7) of your road at $8.00 per cubic yard and to lay in place, in accordance with the specifications, all culvert pipe at twenty-five (25) cents per lineal foot of pipe, the railroad company furnishing and delivering the same at the sight of the culvert.

Very respectfully,

McGRATH, SPELLACY & RYAN.

Accepted July 8, 1884.

F. W. VAUGHN,
Chief Eng'r.

The bid for the concrete was made by the plaintiffs upon the specifications, a copy of which is herewith filed, which
19 required said concrete to be composed of "four measures of
hard durable stone, of quality approved by the engineer, broken in pieces of uniform size not over two (2) inches in any direction, free from clay and well screened, two measures of clear*e* sharp sand, and one measure of best quality of hydraulic cement, all well mixed with clear*e* water and well rammed in place in layers, as directed by the engineer." When this work came to be done the defendant required said concrete to be made, not as provided for in the specifications, but to be composed wholly of pure cement and sand, and the defendant agreed, in consideration that plaintiffs would make such concrete in such way, to pay the plaintiffs what the same was reasonably worth. Under such agreement the plaintiffs put in three and nine-tenths cubic yards of such concrete,
20 and the construction of the same was reasonably worth $16.00
per yard, or, in all, $62.40.

The plaintiffs further show that during the construction of such railroad the defendant employed the plaintiffs to make excavations for laying certain pipe culvert in water and to lay the pipe in the excavation, and defendant agreed to pay plaintiffs for the same what it was reasonably worth, the same not having been included in any bid of plaintiffs. Said work was done in and about the construction of such railroad by the plaintiffs under such agreement, and was reasonably worth the sum of one thousand dollars ($1,000).

The plaintiffs further show that after the acceptance of
21 plaintiffs' bid for piling and trestle-work, as herein shown, the
defendant so changed the plan of their work as to use no piling or tressle-work in the embankment or line of *of* their railroad, as shown in the profile and specifications, and plaintiffs made no tressle-work under their said bid; that during the progress of the work the defendant employed the plaintiffs to make the inclined approaches of the road and *from* crossings on one side of their railroad of piling and tressle-work and to make certain box drains under the same, and inasmuch as such work was not provided for in the profile and specifications on which plaintiffs had bid for such work and was of a kind that was much more difficult to make than
that contemplated in said profile and specifications, the de-
22 fendant agreed to pay plaintiffs for the same what the doing
of such work was reasonably worth. The plaintiffs, under such agreement, furnished all the material and did all the work required for making such tressle-work approaches and such drain pipes, and in so doing they put into said work — feet of piling and

timber, and the reasonable value of such material and work was six thousand dollars ($6,000).

The plaintiffs further show that in grading and making the embankment of said road and preparing the same for laying the track they did other extra work for defendant not included in the bids above mentioned, for which the defendant promised to pay them as follows:

Hauling 32,226 —, at 3 cents each	$96 78
Hauling gravel	65 50

23 The plaintiffs further show that all the work above stated
and all the material herein described was done and furnished under the supervisions and directions of the defendant, and all said work has been fully completed and has been accepted by the defendant. The total amount which plaintiffs are entitled to recover for such work done and material furnished in constructing said railroad is seventy-four thousand one hundred and sixty-one $\frac{14}{100}$ dollars ($74,161.14).

The defendant has paid plaintiffs, on monthly estimates of the work done by the defendant's engineers, fifty thousand four hundred and ninety-four $\frac{14}{100}$ dollars ($50,494.14), and there is still due the
plaintiffs for such work from the defendant twenty-three thou-
24 sand six hundred and sixty-seven dollars ($23,667.00) and
interest thereon since March 15th, 1885. Said work was fully completed by said plaintiffs by the 15 March, 1885, and the plaintiffs thereupon called upon the defendant to make *of* final estimate of all said work and to pay the plaintiffs the balance due them for said work; but the defendant, although its engineers have measured all the work done and material furnished as herein stated, and have found that the quantities of the work so done and of said material are as in this complaint particularly stated, has altogether refused and still refuses to deliver the estimate to plaintiffs, and refuses to furnish them such final estimate or estimates or to pay the
plaintiffs the balance due them unless the plaintiffs will con-
25 sent to a large reduction of the measurements and estimates
of said work as made by the defendant's engineers, and which measurement and estimates are considered by defendant to be correct without such reduction. By reason of the premises the defendant is indebted to the plaintiffs for the matters herein stated in the sum of $23,667.00 and interest as above stated.

The plaintiffs further show that on the 22d day of April, 1885, and within 60 days after the completion of said work, the plaintiffs gave notice of their intention to hold a lien of the grading, embankment, excavation, bridges, and tressle-work of the said sections of the defendant's railroad on which said work was so done by the
plaintiffs, and upon so much of the track of defendant's rail-
26 road as is covered by such grading, embankment, and exca-
vations, by causing said notice to be recorded in the recorder's office of Vanderburgh county, the county in which all said sections of said railroad is situated, a copy of said lien which was so recorded in said office in the record of mechanics' liens of said county, in

volume 2, at page —, is herewith filed. Wherefore plaintiffs ask judgment that they have judgment against the defendant for twenty-five thousand dollars; that the lien above stated be foreclosed and the property on which said lien obtains be sold for the satisfaction of such judgment, together with the reasonable attorneys' fees of plaintiffs and all other proper relief.

Par. 2. For a second and further cause of action against the defendant, plaintiffs say that the defendant is a bridge and 27 railroad corporation under and by virtue of the laws of Indiana, whose railroad is not yet in operation over the whole line thereof; that the defendant is indebted to the plaintiffs in the sum of twenty-five thousand dollars for labor performed and material furnished by plaintiffs to defendant, at the special instance and request of defendant, in grading, building embankments, and making excavations for the track of defendant's railroad on sections one (1), two (2), three (3), four (4), five (5), six (6), and seven (7) of said railroad, between the city of Evansville, Indiana, and the city of Henderson, Kentucky, in the townships of Union and Perry, in Vanderburgh county, in the State of Indiana, and in constructing bridges and tressle-work on such railroad, which sum is due 28 to plaintiffs from defendant after deducting all payments made on account thereof by defendant to plaintiffs. A bill of particulars of such indebtedness is herewith filed.

The plaintiffs further show that on the 22d day of April, 1885, and within sixty days after the completion of said work, the plaintiffs gave notice of their intention to hold a lien on the grading, embankment, excavations, bridges, and tressle-work of said sections of the defendant's railroad on which said work was so done by plaintiffs, and upon so much of the track of defendant's railroad as is covered by such grading, embankment, and excavations for the sum so due plaintiffs for such work, by causing said notice to be recorded in the recorder's office of Vanderburgh county, in the 29 State of Indiana, in volume 2 of the record of mechanics' liens of such count-, at page —. A copy of said lien is herewith filed. The reasonable attorneys' fees upon such lien is the sum of twenty-five hundred dollars. Wherefore plaintiffs ask judgment — twenty-five thousand dollars against the defendant, the foreclosure of their lien upon the property therein described, and the sale of said property for the satisfaction of said judgment, and that the plaintiffs have all other proper relief.

Par. 3. And for a third and further cause of action against the defendant the plaintiffs say that the defendant is indebted to the plaintiffs in the balance of an account for work and labor done and performed by the plaintiffs for defendant at the special in- 30 stance and request of defendant, for material furnished to defendant at defendant's request, and for moneys paid out and expended by the plaintiffs for the defendant, at the special instance and request of the defendant, in the sum of twenty-five thousand dollars. A copy of such account is herewith filed. No part of said sum has been paid.

Wherefore plaintiff- asks judgment for the sum of twenty-five thousand dollars, and for all other proper relief.

GILCHRIST & DE BRULER,
Plaintiffs' Attorneys.

And also, heretofore, to wit, on the 24th day of April, 1885, the *the* defendant's specifications were filed, which are in the words and figures following, viz:

31 OFFICE OF THE HENDERSON BRIDGE COMPANY,
LOUISVILLE, KY.

Specifications for the Graduation, Masonry, and Trestling of the Henderson Bridge Railroad.

Graduation.—Under this head will be included all excavations and embankments required for the formations of the road-bed, cutting all ditches and drains about or contiguous to the road, changes of channels of streams, excavation of the foundation pits for masonry, the excavation and embankment necessary for the reconstructing of turnpikes or common roads, in case where they are interfered with in the formation of the railroad, and all other ex-
cavations and embankments connected with or incident to
32 the construction of the said railroad.

Clearing and Grubbing.

Clearing.—The lands of the company shall be cleared for the necessary distance each side of a center line, to the extent required by the engineer, of all trees, bushes, logs, and other perishable material, which shall be destroyed or deposited in heaps, as the engineer may direct. Large trees must be cut not more than two and one-half feet from the ground.

Grubbing.—All stumps, roots, logs, and other obstructions shall be removed to a depth two feet below subgrade line under embankments and slopes and in excavations and out of the way of ditches, and in such other places as the engineer may direct. Fences, build-
ings, timber, and wood on the line of the road are the prop-
33 erty of the railroad. They shall be cleared off by the con-
tractor, piled up, and preserved for the use of the railroad without charge.

All refuse limbs or timber must be burned. The contract price for excavation and embankment must cover clearing and grubbing as well as all the items under that head. Contractors must bear this in mind.

Excavations.

Width and slopes.—The road will be graded for a single track. The road-bed shall be of such width as the engineer may direct—about twenty-one feet in earth cuts. The slopes shall be of such inclinations as the engineer may designate.

Side ditches.—Side ditches in excavations must be parallel to the centre line and shaped in accordance with the standard cross-sections or such other sections as the engineer may direct.

34 At the lower end of excavations side ditches must diverge sufficiently to avoid washing of the embankments.

Standard side ditches will be made along all embankments of one foot or less in height*h*.

Surface ditches.—Surface ditches will be made on the upper side of excavations, of such size and in such location as may be determined by the engineer.

Classification.—Excavations will be classified under the head of the earth.

Earth.—Earth will include loam, clay, sand, gravel, marl, decomposed rock and slate, stones and boulders containing less than one cubic yard, and all other material not unquestionably rock.

Road and channel changes.—In road alterations or changes of water-courses, if the average distance hauled exceed five hundred feet, the contractor will be entitled to an additional compensation of one cent per cubic yard per hundred feet for such excess.

35 No haul shall be paid on excavation, except as specified above.

Price for excavation.—The *central* prices for excavation will include all bottoming, ditching, road crossing, alterations of road and water channels; also constructions of temporary roads. Th*e*- will also apply to pit*t*s required for foundations.

Embankments.

The embankments will be fifteen feet wide on top, with slopes generally of one and one-half horizontal to one vertical, unless otherwise determined by the engineer.

Manner of building, shrinkage, etc.—Embankments shall be buil*d* according to instructions from the engineer or in layers of such thickness as he may require, with scrapers. Such additional height above grade shall be given to embankments as the engineer may deem necessary to compensate for shrinkage and washing without additional allowance. 36 Embankments about culverts and masonry of all kinds shall be built at such time, in such manner, and of such material as the engineer may direct.

The embankment generally is to be formed by borrowing equally from each side, in which case the crest of the borrow-pit slopes shall not approach nearer than eight feet to the foot of the embankment slopes, allowing fifteen feet additional on each side for a second track. The borrow pits shall be located by the engineer, and whenever practicable must be taken out in regular form, the side next to embankment in all cases to be sloped one and one-half horizontal to one vertical. New channels for water-courses shall be excavated at such distance from the foot of the slope as the engineer 37 may direct. Care must be taken to exclude mud, muck, *frazer* earth, and all perishable materials from embankments.

Measurements.—All earth will be measured in accordance with actual sections of finished roadway and adjuncts, and separate prices for excavations and embankments must be named.

Masonry.

Rubble.—Rubble masonry shall be built of large, flat, bedded, sound stone, free of clay, of approved quality, and laid flush in good fresh-mixed cement mortar. The masonry must be well banded, build straight, plumb, level, and broken-jointed. No spalls will be allowed in the beds. All faces above ground must be neatly pointed with cement and the masonry capped with selected stones, as directed.

38 Box culverts.—Dry box-culvert masonry will be made of good square-shaped stone, of size and quality approved by the engineer, and laid in manner satisfactory to him.

For four feet from the ends the stones to be laid in good cement mortar.

Box-culvert masonry laid in mortar shall be built of good select building stone of good quality and laid flush in good cement mortar to the satisfaction of the engineer.

The covering stones for all box culverts to be of approved thickness and to rest on the walls not less than eighteen inches.

Concrete.—Concrete must be composed of four measures of hard durable stone, of quality approved by the engineer, broken in pieces of uniform size, not over two (2) inches in any direction, free from clay and well screened, two measures of clean, sharp sand and one measure of best quality of hydraulic cement, all well mixed 39 with clean water and well rammed in place in layers, as directed by the engineer.

Drain pipe.—Drain pipes may be used in localities where a culvert not over two feet in diameter is required to be furnished by the bridge company.

The pipes must be laid on a solid foundation, carefully shaped to fit the pipe.

The joints must be completely filled with hydraulic cement mortar.

The ends of the pipe culverts must be carefully set in a wall of brick or stone of such shape and size as may be determined by the engineer; the pipe must be protected by a covering of earth not less than two feet in thickness. The end walls, if of stone, will be paid for by the cubic yard; if of brick, by the thousand, under the proper classification for masonry. The bedding will be paid for as concrete.

40 Slope walls.—Slope walls will be of such thickness and slope as may be determined by the engineer; the stones must reach entirely through the walls; they must not be more than four inches thick and twelve inches long; they must be laid dry, with broken joints; joints to be close and free from spalls; the foundation must be prepared as directed by the engineer.

Paving.—Stone paving will be made by setting stone on edge from eight to fifteen inches in depth, breaking joints, as directed by the engineer.

Mortar.—Cement in all classes of masonry must be made of one measure of good hydraulic cement and two measures of clean sharp sand, or such other proportions as may be perscribed by the engineer, well mixed together with clean water, in clean mortar beds constructed of boards, and must be used immediately after
41 being mixed.

All classes of masonry laid in cement must be neatly pointed with cement mortar finely tempered.

The foundation courses for all classes of masonry must be of large selected stones. No masonry of any kind will be covered up before being accepted by the engineer.

Stone masonry will be built according to the plans and instructions furnished by the engineer, and will be estimated and paid for by the cubic yard, computing the actual solidity thereof. No constructive or conventional measurement will be allowed, any rule or custom in the section of the country through which the road passes to the contrary notwithstanding.

Pile Trestle.

42 This will be built in accordance with standard plan. All piles must be of young, sound, and thrifty white or post oak or other timber equally good for the purpose, acceptable to the engineer; they must be at least ten (10) inches in diameter at the small end, and at the large end w-ere sawed off of sufficient diameter to afford a full bearing to the cap and not exceeding sixteen inches; they must be straight, trimmed close, and have the bark taken off before being driven. The piles must be driven until they do not move more than three-quarters of an inch under the blow of a hammer weighing two thousand (2,000) pounds falling twenty-five feet, and must penetrate at least (13) thirteen feet below the surface of the ground.

They must be driven at the regular distances apart from centers, transversely and longitudinally, as required by plans, the
43 piles of each bent being in a true vertical plane at right angles to line of roadway; the- must be properly pointed and, if required, be shod with iron shoes of approved size and form, which will be paid for at same price with other iron used in trestle. If necessary the piles must be capped with suitable iron rings to prevent splitting.

All piles injured in driving or driven out of place or line shall be replaced without additional charge.

Piles will be paid for by the lineal foot, counting only the actual number of feet left in the structure after completion.

Hewed piles.—If piles with sap hewed off for full length are used the foregoing specifications apply, excepting the size at butt shall not exceed fourteen inches; the score hacks should point toward the small end.

44 Creosoted piles.—Creosoted piles will be governed by same specifications as untreated piles; they must be thoroughly creosoted through their entire length and in such a manner

as to secure an impregnation sufficient to absorb a minimum of one and one-half gallons of liquid to the cubic foot.

Timber.—The timber may be white oak or long-leaved yellow pine, or both, or a portion may be creosoted, as, hereinafter designated; it must be sawed true and out of wind, free from shakes, loose or rotten knots, sap, or any other defect which would impair its strength or durability.

Creosoted timber.—If creosoted timber is used the same requirements as to impregnation will obtain as in case of piles.

Iron.—Iron of various classes must be of good and acceptable quality.

Workmanship.—All framing must be done in a thorough
45 and workmanlike manner; no open joints or shins will be
allowed; the bearings of caps and stringers must all be seized and perfect bearings secured throughout.

Measurement.—All timber in trestles will be paid for by the thousand feet, board measure, counting that actually left in the structure after completion.

Contingencies.—The contractor must furnish all materials and labor incidental to or in any way connected with the manufacture, transportation, erection, and maint*ai*nance of the structures, which must be kept in thorough repair and adjustment until the final acceptance of entire work under contract.

General conditions applicable to all work.—No material must be used before it has been inspected and received by the engineer, who
will submit it — such tests as he may desire. All rejected
46 material must be taken away from side of work without
delay. All work not acceptable to engineer must be taken down and rebuilt on his order at the contractor's cost.

Commodious passing places for public and private roads shall be made and kept in good condition by the contractor, and he shall provide and maintain good and sufficient fences for keeping up enclosures and the preservation of crops. The contractor will be held responsible for trespass or damage to the adjacent properties or for any acts or omi*t*-ions on part of himself, or employees.

Any parties, under the direction of the engineer, shall be *be* permitted to pass over any part of the work and to haul over the same
any material required for the road, such persons not inter-
47 fering with the work of the contractor. Right of way and
necessary lands for borrow pits, channels, ditches, roads, *and* etc., will be provided by the bridge company as early as practicable, but the bridge company is not to be held responsible for any delay caused by legal proceedings beyond its control. Contractors must preserve bench marks and stakes. In case of neglect they will be charged accordingly.

The prices bid must cover the cost of ditching, draining, watching, and all other items of expense in any way connected with the execution and maint*ai*nance of the work until it is formally accepted and received as completed.

The contractors take all risks from accidents, floods, and
48 casual*i*ties of all kinds which may occur during the progress

of the work, and shall make no charge for detention from such causes, but may be entitled, on account of such casualities, to a reasonable extension of time for the completion of the work.

The quantities marked on profile are approximate and not binding. The relative amounts of trestle-work and earth-work may be changed at option of the engineer without prejudice. Contractors must satisfy themselves of the nature of the soil; of the general forms of the surface of the ground; of the quantitys of material required for forming the embankments or other work, and of all matters which can in any way influence their contract, and 49 no information on any such matters derived from the maps, plans, profiles, drawings, or specifications or from the engineer and his assistants will in any way relieve the contractor from any risks or from fulfilling all the specifications and conditions of this contract. The engineer shall have power to direct the application of force to any portion of the work which in his judgment requires it, and to order the increase — diminution of force at any point he may indicate.

Any omission to disapprove imperfect or defective material or work badly done at time of last monthly estimate shall not be construed as an acceptance of it.

All material used in construction of the Henderson Bridge railroad must be to the satisfaction of the engineer, and all the 50 work is to be done in a thorough and workmanlike manner and subject to the constant supervision and inspection of the engineer or his assistants, and the decision of the engineer is to be final and conclusive. The word engineer as used in these specifications refers to the chief engineer or his authorized assistants.

Form of Proposal.

Proposals will be received for the work in the following manner, prices being named seperately for each section:

Graduation.

Excavation, per cubic yard, ——.
Embankment, per cubic yard, ——.

Masonry.

Box-culvert masonry in cement, per cubic yard, ——.
Paving, per cubic yard, ——.
Brick-work, per thousand, ——.

Pile Trestling.

Sawed timber.—First. With all untreated timber stringers 51 14″ x 16″ in single-panel lengths, per thousand feet, B. M., ——.

Second. With all untreated timber stringers long-leaved yellow pine, two panel-lengths, packed with iron rings, t-o pieces 8″ x 16″, per thousand feet, B. M., ——.

Third. With piles, caps, and cross-section braces of creosoted timber, balance of untreated timber, with yellow pine packed stringers in two-panel lengths, two pieces 8″ x 16″ for sections 8, 9, and 10, ——.

Piles.—Untreated piles, per lineal foot, with bark taken off, ——; untreated piles, per lineal foot, with sap hewed off, ——; creosoted piles, per lineal foot, ——.

Iron-work.—Cast iron, per pound, ——; wrought iron, per pound, ——.

Terms of Payment.

52 Estimates will be made by the engineer at the end of each month of the quantity, character, and value of the work done during the month or since the last estimate, and eighty-five (85) per cent. will be paid on or before the fifteenth day of the succeeding month.

The fifteen per cent. retained will not be paid until all the work included in the contract has been completed.

The estimates, monthly and final, made by the engineer of the Henderson Bridge Company as to quantity, character, and value of the work done shall be conclusive and final, except for error founded in fraud or mistake.

Time of Completion.

The trestling, graduation, and masonry from station 0 to station three hundred and thirty-three must be completed by November first, 1884, and the entire work not later than December 15th, 1884.

Louisville, Ky., June 20th, 1884.

F. W. VAUGHN,
Chief Engineer.

53 And also heretofore, to wit, on the 24th day of April, 1885, the profile of the Henderson Bridge Company was filed; which profile is in the words and figures following, viz:

[Same as in the complaint.—Clerk U. S. court.]

And also heretofore, to wit, *to wit*, on the 24th day of April, 1884, a copy of a notice of lien was filed, which is in the words and figures following, viz:

To the Henderson Bridge Company:

Take notice that we, the undersigned, who are copartners under the name of McGrath, Spellacy and Ryan, claim a lien on the railroad embankment of your railroad situated in the townships of Union and Perry, in the county of Vanderburgh, and between the city of Evansville and the city of Henderson, to wit, upon
54 sections one (1), two (2), three (3), four (4), five (5), six (6), and seven (7) of said railroad, and upon the grading, excavation, bridges, and trestle-work on said sections of said railroad, and

upon the track of said railroad on said sections for the sum of twenty-three thousand six hundred and sixty-seven dollars for labor performed and material furnished in grading, build- embankments, and making excavations for the track of your railroad on such sections and in building bridges and trestle-work on said sections of said railroad, which work was done and material furnished by us by contract with said Henderson Bridge Company, the above amount being the sum due us after auditing all payments by us thereon.

Dated April 22d, 1885.

WALLACE McGRATH.
MATT. SPELLACY.
ED. RYAN.

55 And also heretofore, to wit, on the 24th day of April, 1885, a bill of particulars was filed, which is in the words and figures following, viz.:

The Henderson Bridge Company to McGrath, Spellacy & Ryan, Dr., for work done for grading, &c., in building railroad between Evansville and the Ohio River bridge at Henderson, Ky.:

Sec. 1, excavation, 679 cubic yards, @ 18c.	122	22
" 1, " 2,887 " " " 25c.	721	25
" 1, embankment, 1,762 " " " 12c.	211	44
" 1, " 10,866 " " " 25c.	2,721	50
" 2, excavation, 633 " " " 18c.	113	94
" 2, embankment, 17,890 " " " 40c.	7,150	00
" 2, " 10,537 " " " 12c.	1,264	44
" 3, excavation, 5,235 " " " 18c.	942	30
" 3, embankment, 28,689 " " " 13c.	3,729	57
" 3, " 697 " " " 35c.	243	95
" 3, " 1,100 " " " 40c.	440	00
" 4, " 67,908 " " " 14½	9,846	66
Sec. 4, embankment, 2,409 cubic yards, @ 35c.	843	15
" 4, excavation, 6,635 " " " 18c.	1,194	30
Sec. 5, excavation, 9,916 cubic yards, @ 18c.	1,784	83
56 Sec. 5, embankment, 75,271 cubic yards, @ 14½c.	10,914	29
Sec. 5, embankment, 3,791 cubic yards, @ 40c.	1,516	40
" 6, " 79,824 " " " 16c.	12,771	84
" 6, excavation, 13,975 " " " 14c.	2,515	50
" 7, " 1,499 " " " 18c.	269	82
" 7, embankment, 36,990 " " " 18c.	6,658	20
" 2, for excavating foundations for pipe culvert in water and laying the pipe at bayou	1,000	00
" 1 to 2, brick-work, 42,805, @ $20.00 per M	856	10
" " masonry concrete, 3.9 c. y., @ $16.00 pr. c. y.	62	40
" 1, 2, 3, drain pipe laid, 395 feet, 25c. per f.	98	75
" 1, 2, 3, 4, 5, & 6, for timber, piling, & box drains	6,000	00

Damage paid James L. King, paid at request of company	147	50
Expenses of McGrath, Spellacy and Ryan to Louisville & return on call of F. W. Vaugh	63	75
Handling gravel, @ $3.50 per load	65	50
Hauling 3,226 cross-ties, @ 3c.	96	78
	$74,372	93
Less amount previous paym'ts	50,494	14
Amount due	$23,878	79

And afterwards, to wit, on the 5th day of May, 1885, the
57 defendants filed their petition for the removal of this
(cause) to the circuit court of the United States, district of Indiana; which petition is in words and figures following, viz:

STATE OF INDIANA, *Vanderburgh County:*

In the Vanderburgh Circuit Court. May Term, 1885.

WALLACE McGRATH, MATTHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

To the honorable the *the* Vanderburgh court, county of Vanderburgh and State of Indiana:

The petition of the Henderson Bridge Company, a corporation created by the laws of the State of Kentucky and having its chief office and place of business in the city of Louisville and State of Kentucky, respectfully shows that your petitioner is the defendant
in this suit, and that the same was brought by Wallace
58 McGrath, Matthew Spellacy, and Edward Ryan, plaintiffs, on
the 24th day of April, 1885, in the Vanderburg circuit court, to be held in the county of Vanderburgh and State of Indiana; and your petitioner further respectfully shows that the said plaintiffs claim in the complaint of this suit as damages against your petitioner the sum of twenty-five thousand dollars, and that the matter in dispute in this suit therefor- exceeds the sum of five hundred dollars, exclusive of costs.

And your petitioner further respectfully shows that this suit is brought by the said plaintiffs against your petitioner to recover the said sum of twenty-five thousand dollars for work and labor alleged to have been performed and for materials alleged to have been furnished
by them to and for this defendant in grading, building em-
59 bankments, and making excavations for the track of defend-
ant's railroad and in constructing bridges and trestle-work on said railroad between the city of Evansville, Indiana, and the city of Henderson, Kentucky, and for the purpose of enforcing a pretended lien on the portions of said railroad where said work is alleged to have been done, and that at the time of the beginning of this suit

the plaintiff, Wallace McGrath, was and now is a citizen and resident
of the State of Pennsylvania, the plaintiff, Mathew Spellacy, was
and now is a citizen and resident of Ohio, and the plaintiff, Edward
Ryan, was and now is a citizen and resident of the State of Ohio,
and that your petitioner is and was at the time of the bringing of
this suit a citizen of the State of Kentucky; and your petitioner
60 further respectfully shows that this cause has not yet
been tried, but that the same is pending for trial, and that
the term of said Vanderburgh circuit court, of the county of Vanderburgh
and State of Indiana, at which said cause could be first tried
is the present May term of said court, appointed to be held on the
4th day of May inst., at the city of Evansville, in said county, and
that your petitioner desires to remove this suit before the trial
thereof into the next circuit court of the United States to be held in
the district of Indiana, in the seventh circuit, in pursuance of the
provisions of the law as contained in the act of Congress approved
March third, one thousand eight hundred and seventy-five, entitled
An act to determine the jurisdiction of circuit courts of the
61 United States and to regulate the removal of causes from
State courts, — for other purposes.

And your petitioner further respectfully shows that it is ready and
willing to give a bond, with good and sufficient security, for its doing
all acts and things required to — done by the said provisions of
law upon the removal of a cause into the circuit court of the United
States, and it offers and files herewith its bond, executed by Lee
Howell, of the city of Evansville, Indiana, as surety, in the penal
sum of two hundred and fifty dollars, conditioned that your petitioner
shall enter in the next circuit court of the United States to
be held in the district of Indiana, on the first day of the session of
said court, a copy of the record in this suit, and shall pay all
62 costs that may be awarded by the said circuit court if the
said circuit court shall hold that this suit has been wrongfully
or improperly removed thereto, and shall do all such appropriate
acts as by the said act of Congress approved March third, one thousand
eight hundred and seventy-five, are required to be done upon
the removal of a suit into the United States court, as good and sufficient
surety according to such provisions of law upon the removal
of a suit into the United States court.

And your petitioner therefore prays that the said bond may be
accepted as good and sufficient surety according to the said provisions
of law, and that the said suit may *may* be removed into the
next circuit court of the United States to be held in the district of
Indiana, in the seventh circuit, pursuant to the statute of the
63 United States in such case made and provided, and that no
further proceedings may be had therein in this circuit; and
your petitioner will ever pray, & etc.

THE HENDERSON BRIDGE COMPANY,
Petitioner.

S. B. VANCE,
W. J. WOOD,
Attorneys for Petitioner.

STATE OF INDIANA,
County of Vanderburgh, } *ss:*

S. B. Vance, being duly sworn, *and* deposes and says that he is the attorney for the petitioner and that the statements in the foregoing petition are true.

S. B. VANCE.

Subscribed and sworn to before me by S. B. Vance May 4th, 1885.

P. MAIER,
Notary Public.

64 And thereupon, on the 2d judicial day of the May term, 1885, viz., Tuesday, May the 5th, 1885, the following order of said court was made, viz:

WALLACE MCGRATH *et al.*
vs.
THE HENDERSON BRIDGE COMPANY.

Now comes the defendant, by S. B. Vance, its attorney, and enters its appearance to this cause and files its petition and bond for the removal of said cause to the United States court.

And thereupon, on the 5th day of May, 1885, the defendant files its bond herein, which is in the words and figures following, viz:

STATE OF INDIANA, *Vanderburgh County:*

In the Vanderburgh Circuit Court. May Term, 1885.

65 WALLACE MCGRATH, MATHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

We, the Henderson Bridge Company, of the State of Kentucky, as principal, and Lee Howell, of Evansville, as surety, are held and firmly bound unto Wallace McGrath, of the State of Pennsylvania; Mathew Spellacy and Edward Ryan, of the State of Ohio, in the sum of two hundred and fifty dollars, lawful money of the United States of America, to be paid to the said Wallace McGrath, Mathew Spellacy, and Edward Ryan, their successors or assigns; for which payment, well and truly to be made, we hereby bind ourselves, our heirs, executors, and administrators, firmly by these presents.

Sealed with our seals. Dated the — day of May, 1885.

66 Whereas a suit was brought on the 24th day of April, one thousand eight hundred and eighty-five, in the Vanderburgh circuit court, county of Vanderburgh and State of Indiana, by the said Wallace McGrath, Mathew Spellacy, and Edward Ryan against the said Henderson Bridge Company, and the same is now pending for trial in Evansville, Indiana, and is removable into the circuit court of the United States for the district of Indiana, in the seventh

circuit, under the act of Congress approved March 3d, 1875, entitled "An act to determine the jurisdiction of circuit courts of the United States, and to regulate the removal of causes from State courts, and for other purposes;" and

Whereas the said Henderson Bridge Company has filed its petition in said Vanderbugh circuit court for the removal of
67 said suit into the next circuit court of the United States to be held in the district of Indiana:

Now, therefor-, the condition of the above obligation is such that if the above-bound Henderson Bridge Company or its legal representatives shall enter or caused to be entered in the circuit court of the United States for the District of Indiana, on the first day of its stated session next ensuing after the order of the said Vanderburgh circuit court for the removal of said suit into said circuit court, a copy of the record in the said suit and shall pay all costs that may be awarded by the said circuit court if the said circuit court shall hold that this suit has been wrongfully or improperly removed thereto, and shall do or cause to be done such other appropriate acts
68 as by the said act of Congress approved March third, one thousand eight hundred and seventy-five, are required to be done upon the removal of a suit into the United States court, then the above obligation to be void; otherwise to remain in full force and virtue.

LEE HOWELL.

STATE OF INDIANA, *Vanderburgh County:*

Lee Howell, the surety in the foregoing obligation named, being duly sworn, deposes and says that he is a resident of the State of Indiana and a householder therein, and is worth the sum of two hundred and fifty dollars over all his just debts and liabilities and exclusive of property exempt by law from execution.

LEE HOWELL.

Subscribed and sworn to before me this 4th day of May, 1885.

[L. S.] HARRY P. CORNICK,
Notary Public.

69 And afterwards, to wit, on the 5th judicial day of the May term, 1885, of said court, to wit, Friday, May the 8th, 1885, the following order was made, viz:

WALLACE McGRATH, MATHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

Now come the parties, by counsel, and, on the motion of defendant in this cause, it is ordered that the bond filed herein with the defendant's petition for removal of this cause be and it is hereby accepted as good and sufficient securety, and that the said suit be removed into the circuit court of the United States in the district of

Evansville and seventh circuit according to the prayer of said 70 petition and pursuant to the statute of the United States in such case made and provided, and that no further proceedings be had therein in this court.

STATE OF INDIANA,
Vanderburgh County, } *ss:*

I, Chas. T. Jenkins, clerk of the Vanderburgh circuit court, do hereby certify that the foregoing is a full, true, and complete transcript of the record and proceedings in the foregoing-entitled cause as the same appears of record and on file in the office of the clerk of said county.

Witness the clerk and the seal of said court, at Evansville, Indiana, this 22d day of May, A. D. 1885.

[L. S.] CHAS. T. JENKINS, *Clerk.*

I further certify that the fee for the foregoing transcript is $18.50, same having been paid by the defendant.

71 Witness the clerk and the seal of said court this 5th day of June, 1885.

And afterwards, to wit, on Tuesday, October 6th, 1885, the following further proceedings in said cause were had, to wit:

WALLACE MCGRATH *et als.*
vs.
THE HENDERSON BRIDGE COMPANY.

Come now the plaintiffs, by Mess. Gilchrist & De Bruler, their attorneys, and dismiss all that part of their complaint claiming a lien, and also, by leave of court first had and obtained, the said plaintiffs are allowed to file an additional paragraph to their complaint in the words and figures following:

In the Circuit Court of the United States, District of Indiana.

72 WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

Par 3. For a further cause of action plaintiffs say:

The said Wallace McGrath, Matthew Spellacy, and Edward Ryan, who are copartners under name of McGrath, Spellacy & Ryan, complain of the defendant, The Henderson Bridge Company, and for cause of action say that said McGrath is a citizen of the State of Pennsylvania, and said Spellacy and Ryan are each citizens of the State of Ohio; that said Henderson Bridge Company is a citizen of the State of Kentucky, and is a corporation duly organized under the laws of the State of Kentucky for the purpose of building 73 a bridge over the Ohio river from the city of Henderson, in the State of Kentucky, to the Indiana bank of said river, and

to build a railroad, with proper embankments, over the low grounds of the Indiana side of said river, and so as to make a connection at the city of Evansville with other railroads; that said Henderson Bridge Company is indebted to the plaintiffs in the sum of twenty-three thousand six hundred and sixty-seven dollars for work and labor performed by the plaintiffs and material furnished by them in building the said railroad of the defendant between the city of Evansville and the city of Henderson, as follows: On or about the 1st of July, 1884, said Henderson Bridge Company having advertised for bids for the construction of said railroad and making
the necessary embankment, excavation, graduation, tressle-
74 work, masonry, and other work necessary to build said rail-
road, the plaintiffs made to the defendant a bid in writing for
doing certain work in building said railroad. Said bid or proposal was left with the defendant, and the plaintiffs have no copy of the same and cannot file a copy. Said bid or proposal was made upon the profile and specifications for building said railroad which were then on file in the office of said company. A copy of said profile and of said specifications is herewith filed. In and by said bid the plaintiffs offered to do work and furnish*ed* material in building said railroad according to said profile and specifications as follows: For making the necessary excavations, as shown by said profile and specifica-
tions, on sections one (1) to seven (7), inclusive, of said railroad
75 eighteen cents for each cubic yard of such excavation; for
making embankment for said railroad according to said pro-
file and specifications, eighteen cents per cubic foot for all embankment upon section seven (7) of such railroad; sixteen cents per cubic yard for all embankments on section six (6); fourteen and one-half cents per cubic yard for all embankments on sections five (5) and four (4); thirteen cents per cubic yard for all embankment on section three (3), and twelve cents per — yard for all embankment on sections two (2) and one (1) of said railroad; thirty cents per lineal foot for all piling and twenty-eight dollars
per thousand for all timber put into tressle-work, as shown by
76 said profile, and three cents per pound for all cast iron and
four cents per pound for all wrought iron used in said tressle-
work, and twenty dollars per thousand for all brick put into masonry on said sections one to seven, inclusive.

The defendant accepted said proposal of the plaintiffs by a letter duly sent by the defendant to the plaintiffs, of which the following is a copy:

THE HENDERSON BRIDGE COMPANY,
LOUISVILLE, KY., *July* 23, 1885.

Messrs. McGrath, Spellacy and Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and tressling of the Henderson Bridge railroad from station zero to station three hundred and thirty-third (333),
in accordance with our specifications, is accepted. This com-
77 prises all the work of the above character from sections one
(1) to six (6), inclusive, and a portion of section seven (7).

It is understood that piles used are to be round with bark taken off stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet a- *feet apart* between centers, as I may hereafter elect. In the former case cross-ties are to be eight (8) by — (3) inches, ten (10) feet long; in the latter six (6) by eight (8) inches, nine (9) feet long; otherwise construction is to be as per standard plan.

It is also understood that should it be deemed desirable the amount of tressling on these sections, shown on profile exhibited at letting, may be reduced without affecting prices named. I am unexpectedly called from the city this evening and will not be able to prepare contract for signature before leaving; will
78 have it drawn up in the course of a week and sent you for
signature. In meantime you can proceed with the work the same as if contract had been duly executed.

Yours truly,
F. W. VAUGHN,
Chief Eng'r.

No contract was ever drawn up by the defendant or executed by the parties, except such contract as was made by said bids and the acceptance thereof.

Under the directions in said letter and under the supervision of the engineers of the defendant, the plaintiffs have done and performed all things to be performed by them under said agreement with the defendant for the grading, embankments, and excavations upon said seven sections of said railroad and have finished
79 said work, and the defendant has duly accepted the work of
these plaintiffs and received —, and have laid their track upon the embankment of said railroad, and are now using the same. In doing said work the following quantities of earth were put into embankments on the several sections of said railroad, and for which the plaintiffs are entitled to recover the following sums of money from the defendant, viz:

Section 1, 1,762 yards, at 12 cents	211	44
Section 2, 10,537 yards, at 12 cents	1,264	44
Section 3, 28,689 yards, at 13 cents	3,729	57
Section 4, 67,908 yards, at 14½ cents	9,846	56
Section 5, 75,271 yards, at 14½ cents	10,914	29
Section 6, 79,824 yards, at 16 cents	12,771	84
Section 7, 36,990 yards, at 18	6,658	20

In addition to the embankment above stated, which was made by the plaintiffs under their bid in accordance with said
80 specifications and profile, the plaintiffs made embankments
for road crossings under the following circumstances and under the following agreement, viz:

The defendant would not inform plaintiff- what kind of crossings should be made at the intersections of the different highways with said railroad, but required the plaintiffs to go on and finish the railroad embankment without making any road crossings over said railroad, and plaintiffs did finish said embankment without making said crossing. The defendant then required the plaintiffs to make

a solid embankment of earth on one side of the railroad embankment at the intersections of the highways which crossed said railroad, and the plaintiffs then declined to make such road-
81 crossing embankments for the reason that they were not called for by the profile or specifications and for the reason that the cost of making them was very much greater than if they had been made at the same time with the railroad embankment, and thereupon the defendant agreed that if plaintiffs would make such embankment- for highway crossings the defendant would pay plaintiffs for said work as follows: For all embankments so made on section one of said work, 25 cents per cubic yard; on section 2, 25 cents per cubic yard; on section 3, 18 cents and 25 cents per cubic yard; on section 4, 18 cents per cubic yard; on section 5, 25 cents per cubic yard.

Under such agreement the plaintiffs made embankments for such highway crossings and in other ways which contained the following amounts of cubic yards of earth, and the making of
82 which was reasonably worth the following-named sums, viz:

Section 1, 10.886 yards.
Section 2, 17,890 yards.
Section 3, 697 yards at 18 cents per cubic yard.
Section 3, 1,100 yards at 25 cents per cubic yard.
Section 4, 2,409 yards.
Section 5, 3,791 yards.

The plaintiff- further says that on section 2 of said work the defendant did not procure a right of way of sufficient width so that the embankment could be made by borrowing earth from the sides, and it was necessary to haul a large portion of the earth for said embankment a long distance; that in consideration of such fact the defendant, after it found that it could not procure such right of way of proper width, agreed with plaintiffs that it would pay plaintiffs for all such earth on which such long haul was required
83 what the same was reasonably worth; that such long haul was required on 17,890 cubic yards of earth, and the reasonable worth of putting the same into the embankment was 25 cents per yard.

The plaintiffs further show that defendant did not procure any right of way on the greater part of section 1 of said work until after November 1st, 1884, and on or about the 1st day of December, 1884, and plaintiffs then refused to perform said work at the contract price for the reason that the same would cost them much more to do than if it had been done earlier in the season. The defendant then agreed in consideration that plaintiff- would perform said work after said date that defendant would pay plaintiffs 25 cents per cubic yard for all the earth put into embankment on
84 said portion of said section. Under said agreement plaintiffs put into such embankment 10,886 cubic yards of earth, which, at said agreed price, amounted to $2,721.50.

The plaintiffs further show that under their accepted bid, as above shown, they made for the defendant the following amount of excavation:

On section 1, 679 yards, at 18 cents	$122 22
On section 2, 633 yards, at 18 cents	113 94

After such work was in progress the defendant changed the plan of their railroad as to its construction by requiring a continuous ditch to be made along the foot of the easterly side of their railroad embankment along the whole of the work let to plaintiffs, and so that water would flow in such ditch from one end to the other end thereof. The plaintiffs when called upon to make 85 such ditch declined to do so for the reason that no provision was made for it in the profile or specifications upon which their bid was made, and for the reason that the making of the excavations for such ditch would be much more expensive per cubic yard than the excavations contemplated in the profile and specifications; and thereupon is was agreed by the defendant that if plaintiffs would make such ditch they should receive for their work in so making the price at which they had bid for excavation, viz., 18 cents per cubic yard for all the earth removed in making such ditch. It was also agreed that said ditch was not to be included in any of the monthly estimates made by defendants of said 86 work, but that the whole of said ditch should be included in the final estimate and that plaintiffs should then be paid for the same. Under such agreement the plaintiffs made such continuous ditch, and the measurement of the same as made and estimated by the defendant and as the measurement was in fact *was* as follows, and the plaintiffs are entitled to receive for said work the following amounts, viz:

On section 3, 5,235 yards, at 18 cents	$942 30
" section 4, 6,635 yards, at 18 cents	1,194 30
" section 5, 9,916 yards, at 18 cents	1,784 83
" section 6, 13,975 yards, at 18 cents	2,505 50
" section 7, 1,499 yards, at 18 cents	269 82

And the reasonable cost, expense, and worth of such work in making said ditch in addition to any ditch shown by said profile & specifications was the sum above stated, and in addition 87 to all the excavations above stated the plaintiffs did other excavation in the building of — railroad which was not included in their bid for the work, and for making which the defendant agreed to pay the plaintiffs what the same was reasonably worth. Under such agreement the plaintiffs made excavations of 2,887 cubic yards of earth, which was reasonably worth twenty-five cents per yard or $721.75 in all.

The plaintiffs further show that under their proposal as accepted by the defendants they made masonry as follows, viz: They laid 42,805 bricks, which, at the contract price of $25 per thousand, amount—$856.10, and they laid 395 lineal feet of drain pipe, which, at the agreed price of 25 cents per lineal foot, is $98.75. The bid for laying such drain pipe was a separate one, made by the 88 plaintiffs and accepted by the defendant in writing, of which the following is a copy:

Louisville, *July 8th*, 1884.

F. W. Vaugh, Esq., chief eng'r the Henderson Bridge Co. R. R.,
Louisville, Ky.

Dear Sir: We hereby propose to put in all the concrete required on sections No. 1 to sec. No. 7 of your road at $8.00 per cubic yard and to lay in place, in accordance with the specifications, all culvert pipe at twenty-five (25) cents per lineal foot of pipe, the railroad company furnishing and delivering the same at the sight of the culvert.

Very respectfully,
McGRATH, SPELLACY & RYAN.

Accepted July 8th, 1884.

F. W. VAUGHN,
Chief Eng'r.

89 The bid for the concrete was made by the plaintiffs upon the specifications, a copy of which is herewith filed, and which required said concrete to be composed of "four measures of hard duriable stone, of quality approved by the engineer, broken in pieces of uniform size, not over two (2) inches in any direction, free from clay and well screened, two measures of clean sharp sand, and one measure of best quality of hydraulic cement, all well mixed with clean water and well rammed in place in layers, as directed by the engineer." When this work came to be done the defendant required said concrete to be made, not as provided for in the specifications, but to be composed wholly of pure cement and sand, and the defendant agreed, in consideration that plaintiffs 90 would make such concrete in such way, to pay the plaintiffs what the same was reasonably worth. Under such agreement the plaintiffs put in three and nine-tenths cubic yards of such concrete, and the construction of the same was reasonably worth $16 per yard, in all, $62.40

The plaintiffs further show that during the construction of such railroad the defendant employed the plaintiffs to make excavations for laying certain pipe culve-t in water and to lay the pipe in the excavation, and defendant agreed to pay plaintiffs for the same what it was reasonably worth, the same not having been included in any bid of plaintiffs. Said work was done in and about the construction of said railroad by the plaintiffs under such agreement, and was reasonably worth the sum of one thousand dollars ($1,000).

91 The plaintiffs further show that after the acceptance of plaintiffs' bid for piling and tres-le-work, as herein shown, the defendant so changed the plan of their work as to use no piling or tressle-work in the embankment or line of the railroad, as shown in the profile and specifications, and plaintiffs made no tressle-work under their said bid; that during the progress of the work the de-

fendant employed the plaintiffs to make the inclined approaches of the road and form crossings on one side of their railroad of piling and tressle-work and to make certain box drains under the same, and inasmuch as such work was not provided for in the profile and specifications on which plaintiffs had bid for such work and was of a kind that was much more difficult to make than that con-
92 templated in said profile and specifications, the defendant agreed to pay the plaintiffs for the same what the doing of such work was reasonably worth. The plaintiffs, under such agreement, furnished all the material and did all the work required for making such tressle-work approaches and such drain pipes, and in so doing they put into said work — feet of piling and timber, and the reasonable value of such material and work was six thousand dollars ($6,000).

The plaintiffs further show that in grading and making the embankment of said road and in preparing the same for laying the track they did other extra work for defendant not included in the bids above mentioned, for which the defendant promised to
93 pay them as follows:

Hauling 32,226 cross-ties, at 3 cents each	$96 78
Hauling gravel	65 50

The plaintiffs further show that all the work above stated and all the material described herein was done and furnished under the supervision and direction of the defendant, and all said work has been fully completed and has been accepted by the defendant. The total amount which plaintiffs are entitled to receive for such work done and material furnished in constructing said railroad is seventy-four thousand one hundred and sixty-one $\frac{14}{100}$ dollars ($74,161.14).

The defendant has paid plaintiffs, on monthly estimates of the work done by the defendant's engineers, fifty thousand four hundred and ninety-four $\frac{14}{100}$ dollars ($50,494.14), and there is still due
94 the plaintiffs for such work from the defendant twenty-three thousand six hundred and sixty-seven dollars ($23,667.00) and interest thereon since March 15th, 1885. Said work was fully completed by the plaintiffs by March 15th, 1885, and the defendant thereupon gave to the plaintiffs a final estimate for said work, which estimate, as to the amount and values of said work, were the same as hereinbefore stated. Said final estimate was given orally to the plaintiffs on the 3rd day of April, 1885, and the defendant, although often requested, *have* refused to give the plaintiffs any other final estimate of said work than said oral estimate. By reason of the premises defendant is indebted to the plaintiff- in the sum of twenty-four thousand dollars, $24,000, and interest from March 15th, 1885, for which sum the plaintiffs demand judgment.

GELCHRIST & DE BRULER,
Plaintiffs' Attorneys.

95 And the said plaintiffs move the court to require the defendants on the trial of this cause to produce certain books

relating to the work the contract price of which is sued for in this action.

And come also the defendants and file their answer herein, in two paragraphs, in the words and figures following, to wit, to the plaintiffs' complaint:

Circuit Court of the United States for the district of Indiana.

WALLACE McGRATH, MATTHEW SPELLACY, EDWARD RYAN
v.
THE HENDERSON BRIDGE COMPANY.

The defendant, The Henderson Bridge Company, for its answer to the complaint herein, says:

96 It denies that it is indebted to the complainants in the sum of twenty-three thousand six hundred and sixty-seven dollars or in any other sum.

The defendant admits that in the month of July, 1884, the plaintiffs made to the defendant a proposition to do certain work in construction of its railroad from its bridge over the Ohio river at the city of Henderson, Kentucky, to a point on the line of the Southeast and St. Louis railway near the city of Evansville, in the State of Indiana, and that the prices in said proposition were as stated in the complaint. The said proposition was accepted by this defendant, as shown by the letter of F. W. Vaughn, its chief engineer, of date July 8th, 1884, to the plaintiffs and the same set forth in their complaint. The said letter, in so far as it was an acceptance
97 of said proposition, was as follows:

"Messr-. McGrath, Spellacy & Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and trestling of the Henderson Bridge railroad from station zero to station three hundred and thirty-three (333), in accordance with our specifications, is accepted. This comprises all the work of the above character from sections one (1) to six (6), inclusive, and a portion of section seven (7).

It is understood that piles used are to — round, with bark taken off, stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet apart between centres, as I may hereafter elect. In the former case cross-ties are to be eight (8) by eight (8) inches, ten (10) feet long; in the latter six (6) by eight (8) inches, nine (9) feet long; otherwise construction is to be as per stand-
98 ard plan.

It is also understood that should it be deemed desirable the amount of trestling on these sections shown on profile, exhibited at letting, may be reduced without effecting prices named."

The said proposition of plaintiffs and the said letter of defendant's said engineer and the specifications therein referred to constitute the contract between plaintiffs and defendant for the doing of said work. Copies of said letter and specifications are herewith filed as part hereof.

The profile of said road, exhibited at letting, indicated the general plan of said work, but was subject to such alterations as are indicated in the said specifications and in the said letter of this defendant's engineer. This defendant admits that in doing said work the 99 plaintiffs put into embankments on the several sections of said road specified in their said proposition in the road-bed and in the road and farm crossings the quantities of earth stated in their complaint; but defendant says the plaintiffs made the whole of said embankments under their said contract and were entitled to demand and receive therefor only the prices fixed in their said contract, subject to the abatement hereinafter claimed, and it denies that they were or are entitled to demand or that defendant contracted to pay any other or greater price for any part thereof.

The defendant says that the embankment for its road-bed interests numerous highways and indicated farms and tracts of 100 land that by contract with the owners of said farms and tracts of land and in part consideration of the grant of the right of way through them it was under obligations to provide suitable and convenient crossings thereon over its said road, and by the statutes of this State it was required to restore the highways obstructed by its said road-bed. The said specifications, being part of the plaintiffs' said contract, provide that under the head of "graduation" "will be included the excavation and embankment necessary for the reconstructing of turnpikes or common roads in cases where they are interfered with in the formation of the railroad and all other excavations and embankments connected with or incident to the construction of the said railroad;" and the said embankments for 101 farm crossings and road crossings were incident to and were made necessary by the construction of the said railroad; and defendant admits that it "required the plaintiffs to make a solid embankment of earth on one side of the railroad embankment at the intersection of the highways which crossed the said railroad," and also at sundry farm crossings for the purpose of reconstructing said highways and providing said farm crossings, but it says that the said embankments were within the provisions of plaintiffs' said contract, and it was defendant's right under said contract to require them to be made by plaintiffs.

Defendant denies that it prohibited plaintiffs from making 102 said crossings or any of them at the same time as the road embankment was made, but it says that plaintiffs were in arrears with their work and it had the right under said contract "to direct the application of force to any portion of the work which, in its engineer's judgment, might require it, and to order the increase and diminution of force at any point he might indicate;" and it denies that further than as thus authorized it in any way interfered with plaintiffs' conduct of said work. It denies that it "would not inform plaintiffs what kind of crossings should be made at the intersections of the different highways with said railroad," or that the cost of making them was any greater than if made at the same time with the railroad embankment, or that for the considerations 103 stated by plaintiffs or for any other consideration or that it did at all agree to pay plaintiffs what it was reasonably worth to make such embankment or any other embankment, or that it contracted with plaintiffs to pay them any other than the prices fixed for said work in their said original contract.

The defendant admits that the plaintiffs made for it the following amount of excavation, as alleged in their complaint, viz:

On section one, 679 cubic yards.
On " " 2,887 cubic yards.
On " two, 633 cubic yards.

But defendant says all said excavation was made under and included in plaintiffs' said contract, and denies that the item of 2,887 cubic yards of excavation was not included in their bid for the work, or that it agreed to pay plaintiffs therefor what it was
104 reasonably worth or any other than the contract price.

Defendant denies that it required plaintiffs to make a continuous ditch along the foot of the easterly side of its railroad embankment along the whole of the work let to them; it denies that plaintiffs excavated the quantity of earth stated in their petition and charged in their account in the making of such ditch, or that plaintiffs made such ditch, or that defendant ever measured or authorized the measuring of such ditch, or that there is along its said road any ditch from which the measurement stated by plaintiffs in their complaint and account can be or would have been obtained. The contract of plaintiffs provides that "the borrow pits shall be located by the engineer, and whenever
105 practicable must be taken out in regular form, the side next
to embankment in all cases to be sloped one and one-half—horizontal to one vertical," the borrow pits along the work of plaintiffs being thus made *made* almost a continuous ditch, and the only work done by plaintiffs at the request of defendant or otherwise for the purpose of making said pretended ditch was after the borrow pits were dug, for the purpose of making the road embankment to connect said borrow pits by ditches, where obstructions to the flow of water existed between them. In doing this they excavated not more than four thousand cubic yards of earth, for which they were entitled to the contract price of eighteen cents per cubic yard;
106 and defendant denies each and every item for excavation
mentioned in the complaint or charged in the account therewith filed other than is hereinbefore admitted.

The defendant denies that it employed the plaintiffs to make excavations for laying any pipe culvert in water or to lay pipe in such excavations or contracted to pay plaintiffs for the same what it was reasonably worth, or that it employed plaintiffs to lay or that they did lay any such culvert, which was not included in any bid of plaintiffs. Defendant says the plaintiffs agreed in writing, as shown by their accepted proposition, set forth in their complaint, being their letter of July 8th, 1884, to F. W. Vaughn, defendant's chief engineer, and by him ac-
107 cepted, to lay in place, in accordance with the specifications,
all culvert pipe at twenty-five cents per lineal foot of pipe, the railroad furnishing and delivering the same at the site of the

culvert; and that plaintiffs laid only 401 feet of such pipe, including
the item of 395 feet "drain pipe," mentioned in the complaint
and charged in their account, and that they were entitled to receive
therefor only the contract price of twenty-five cents per lineal foot;
and defendant denies the item of $1,000.00 for excavating and laying
pipe culvert in water claimed in the petition, and the same
charged in the account, "for excavating, excavating foundations for
pipe culvert in water, and laying the pipe at bayou, $1,000.00."

108 Defendant says it is not true that plaintiffs "made no tressle-work
under their said bid," but says they made no tressle
for defendant except under their said bid. It denies that during
the progress of the work it employed plaintiffs to make the inclined
approaches of the road and form crossings on one side of its railroad
of piling and tressle-work, or that it agreed to pay plaintiffs
for the name what the doing of such work was reasonably worth.
It says said work was included in the specifications, being part of
the said contract of plaintiffs, and was done under said contract, and
plaintiffs were entitled to only the contract price therefor. The
work and labor of plaintiffs and the "timber and piling"
109 used in the construction of said "piling and tressle-work was
not worth more than the sum of three thousand dollars.

The defendants admit that the plaintiffs laid a quantity of wooden
"box drains" under certain road crossings, which was reasonably
worth not more than the sum of two hundred and thirty-two &
$\frac{40}{100}$ dollars. The defendant denies the whole balance of the said
claim of plaintiffs for $6,000.00 for "timber, piling, and box drains."

Defendant admits that the plaintiffs put in their said work three
& $\frac{9}{10}$ cubic yards of concrete, made as alleged in the complaint,
but it was so made, not by the request of defendant, but by the
choice and for the convenience of plaintiffs, and they are
110 entitled to receive therefor only the contract price of eight
dollars per cubic yard. Defendant denies that the work included
in plaintiff's contract in the complaint mentioned for the
graduation, masonry, and trestling of the portion of its road mentioned
was fully completed by them by the 15th of March, 1885, or
that they have at all completed same or that this defendant has ever
"formally accepted or received same as completed" under the contract.
The said specifications provide that "the prices bid must
cover the cost of ditching, draining, watching, and all other items of
expense in any way connected with the execution and maintenance of
the work until it is "formerly accepted and received as completed;"
also, that "the contractors take all risks from accidents, floods,
111 and casualties of all kinds which may occur during the progress
of the work; and also that "care must be taken to exclude mud,
muck, frozen earth, and all perishable materials from embankments."
Now, defendant says that by the terms of plaintiffs' said contract
the trestling, graduation, and masonry included therein were to
have been completed by November first, 1884; and long after said
time, to wit, in the month of January, 1885, the plaintiffs, in violation
of their said contract, built a large part of the said embankment
in sections three to seven, inclusive, of mud, muck, and frozen

earth, and on the approach of spring and before the completion of their said work and before the acceptance thereof the said
112 frozen earth thawed and dissolved and the said embankment in many places sank down or fell to pieces, so that it was incomplete and not in a condition to be accepted under their said contract. It was the duty of plaintiffs to complete the said embankment ready to receive the cross-ties and rails and to maintain the said work in thorough repair until the final completion and acceptance of the whole work, and defendant notified them of the said condition of the said embankment and requested them to repair it, but they refused to do so, and defendant was compelled to repair said embankment and fit same to receive the cross-ties and rails at a necessary cost of five thousand and five hundred dollars. No part of said sum
113 has been paid or accounted for to defendant by plaintiffs. The said contract of plaintiffs provides that eighty-five per cent. of the work done shall be paid to them on monthly estimates, but that "the fifteen per cent. retained will not be paid until all the work included in the contract has been completed." Now, defendant says the work so done by it was in necessary reparation of the work done by plaintiffs, and for which recovery is sought in their complaint and was included in their said contract, and that by reason of the facts above stated plaintiffs are not entitled to recover, but defendant is entitled to retain the said sum of five thousand and five hundred dollars.

114 Defendant admits the items for hauling gravel and cross-ties, but denies each and every other item claimed in the complaint so charged in the account therewith filed not hereinbefore admitted.

Defendant denies that the work done by plaintiffs and the material furnished by them in constructing said railroad amounted to the sum of seventy-four thousand one hundred and sixty-one & $\frac{14}{100}$ dollars, but says it amounted to only the sum of fifty thousand four hundred and sixty-eight & $\frac{80}{100}$ dollars, and that the whole thereof has been paid. Defendant denies each and every allegation of the complaint not herein admitted.

Defendant says that on the 1st day of August, 1884, one Henry Wasson filed and caused to be recorded in the office of the
115 recorder of Vanderburgh county a notice of a lien on its railroad embankment and upon the grading, excavation, and the track thereof for the sum of fifteen hundred dollars due him by the plaintiffs for work and labor *and labor* done by him as a subcontractor under plaintiffs in making such embankment, grading, excavation, and track in section number four of its said railroad. A copy of said notice is herewith filed as part hereof. No part of said sum, so far as defendant knows, is informed, or has reason to believe, has been paid.

And on the 24th day of April, 1885, Daniel T. Hartnett and Tom Hartnett cause- to be served on this defendant a notice of a claim in their favor and against the plaintiffs for the sum of two thou-
116 sand two hundred and eighty-two dollars for work and labor done by them for plaintiffs on section number (4) four and

section number (6) six, being excavation and embankment done on defendant's said railroad, and that they hold this defendant responsible for the payment to them of said sum of money. A copy of the said notice is herewith filed as part hereof. Defendant has no knowledge, nor any informatian sufficient to form a belief, that part of the said sum has been paid.

The said claims are *operated* under and in accordance with an act of the General Assembly of the State of Indiana, entitled "An act concerning liens of mechanics, laborers, and material men," approved March 6th, 1883, which said act provides security
117 for laborers and subcontractors against the corporation owning a railroad and against its road upon such notice.

By reason of the facts alleged the said Henry Wasson, Daniel T. Hartnett, and Tom Hartnett are necessary parties to this suit, and a complete determination of the controversy herein cannot be had without their presence.

Defendant prays that the said Henry Wasson, Daniel T. Hartnett, and Tom Hartnett be made parties to this suit for process against them and they be required to show what interest, if any, they have in the matters in controversy in this suit.

Defendant prays to be dismissed with its costs and for all proper relief.

118 Par. (2). The defendant, by way of counter-claim against the plaintiffs, says that the work included in plaintiffs' contract in the complaint mentioned for the graduation, masonry, and trestling of the portion of its road mentioned was not completed by plaintiffs and has not been "formally accepted or received by defendant as completed." The plaintiffs' said contract provides that "the prices bid must cover the cost of ditching, draining, watching, and all other items of expense in any way connected with the execution and maintenance of the work until it is formally accepted and received as completed;" also that "the contractors take all risks from accidents, floods, casualties of all kinds which may occur during the progress of the work," and also that "care must be taken to
119 exclude mud, muck, and frozen earth and all perishable materials from embankments." Now, defendant says that by the terms of plaintiffs' said contract the trestling, graduation, and masonry included therein were to have been completed by November 1st, 1884, and long after said time, to wit, in the month of January, 1885, the plaintiffs, in violation of their said contract, built a large part of the said embankment in sections three to seven, inclusive, of mud, muck, and frozen earth, and on the approach of spring and before the completion of their said work and before the acceptance thereof the said embankment in many places sank down and fell to pieces, so that it was incomplete and not in a con-
120 dition to be accepted under their said contract. It was the duty of plaintiffs to complete the said embankment ready to receive the superstructure of rails and cross-ties and to maintain the same in repair until the final completion and acceptance of the whole work, and defendant notified them of the said condition of the said embankment and requested them to repair it, but they re-

fused to do so, and defendant was compelled to repair said embankment at a necessary cost of five thousand and five hundred dollars. No part of said sum has been paid or accounted for to defendant by plaintiff. Now, defendant says the work so done by it was in necessary reparation of the work done by plaintiffs and was 121 included in their said contract and should have been done by them without any charge therefor; and so defendant says it has the right to demand and receive of plaintiffs the said sum. Wherefore it prays judgment against the plaintiffs for the said sum of five thousand and five hundred dollars for its costs and for all other proper relief.

S. B. VANCE,
W. J. WOOD,
Att'ys for Defendant.

And be it remembered that heretofore, to wit, on the 6th day of October, 1885, the defendant's specifications also were filed in the words and figures following, to wit:

122 OFFICE OF THE HENDERSON BRIDGE CO.,
LOUISVILLE, KY.

Specifications for the Graduation, Masonry, and Trestling of the Henderson Bridge Railroad.

Graduation—General.—Under this head will be included all excavations and embankments required for the formations of the road-bed, cutting all ditches and drains about or contiguous to the road, changes of channels of streams, excavation of the foundation pits for masonry, the excavation and embankment necessary for the reconstructing of turnpikes or common roads, in cases where they are interfered with in the formation of the railroad, and all other 123 excavations and embankments connected with or incident to the construction of the said railroad.

Clearing and Grubbing.

Clearing.—The lands of the company shall be cleared for the necessary distance each side of a centre line, to the extent required by the engineer, of all trees, bushes, logs, and other perishable material, which shall be destroyed or deposited in heaps, as the engineer may direct. Large trees must be cut not more than two and one-half feet from the ground.

Grubbing.—All stumps, roots, logs, and other obstructions shall be removed to a depth two feet below subgrade line under embankments and slopes and in excavations and out of the way of ditches, and in such other places as the engineer may direct.

124 Fences, buildings, timber, and wood on the line of the road are the property of the railroad. They shall be cleared off by the contractor, piled up, and preserved for the use of the railroad without charge.

All refuse limbs or timber must be burned. The contract price for excavation and embankment must cover clearing and grubbing as well as all the items under that head. Contractors must bear this in mind.

Excavations.

Width and slopes.—The road will be graded for a single track. The road-bed shall be of such width as the engineer may direct—about twenty-one feet in earth cuts. The slopes shall be of such inclination as the engineer may designate.

Side ditches.—Side ditches in excavations must be parallel
125 to the centre line and shaped in accordance with the standard
cross-sections or such other sections as the engineer may
direct.

At the lower end of excavations side ditches must diverge sufficiently to avoid washing of the embankments.

Standard side ditches will be made along all embankments of one foot or less in height.

Surface ditches:—Surface ditches will be made on the upper side of excavations, of such size and in such location as may be determined by the engineer.

Classification.—Excavations will be classified under the head of earth.

Earth.—Earth will include loam, clay, sand, gravel, marl, de-
composed rock and slate, stones and boulders containing less
126 than one cubic yard, and all other material not unquestion-
ably rock.

Road and channel changes.—In road alterations or changes of water-courses, if the average distance hauled exceeds five hundred feet, the contractor will be entitled to an additional compensation of one cent per cubic yard per hundred feet for such excess. No haul shall be paid on excavation, except as specified above.

Price for excavation.—The contract prices for excavation will include all bottoming, ditching, road crossing, alteration of roads and water channels; also construction of temporary roads. They will also apply to pits required for foundations.

Embankments.

Width and slopes.—The embankments will be fifteen feet wide on top, with slopes generally of one and one-half horizontal to one vertical, unless otherwise determined by the engineer.

127 Manner of building, shrinkage, & etc.—Embankments shall
be built according to instructions from the engineer or in
layers of such thickness as he may require, with scrapers. Such additional height above grade shall be given to embankments as the engineer may deem necessary to compensate for shrinkage and washing, without additional allowance.

Embankments about culverts and masonry of all kinds shall be built at such time, in such manner, and of such material as the engineer may direct.

The embankment generally is to be formed by borrowing equally from each side, in which case the crest of the borrow-pit slopes shall
not approach nearer than eight feet to the foot of the embank-
128 ment slopes, allowing fifteen feet additional on one side for a
second track. The borrow pits shall be located by the engineer, and whenever practicable must be taken out in regular form, the side next to embankment in all cases to be sloped one and one-half horizontal to one vertical.

New channels for water-courses shall be excavated at such distance from the foot of the slope as the engineer may direct.

Care must be taken to exclude mud, muck, frozen earth, and all perishable materials from embankments.

Measurements.—All earth-work will be measured in accordance with actual sections of finished roadway and adjuncts, and separate prices for excavation and embankment must be named.

129 *Masonry.*

Rubble.—Rubble masonry shall be built of large, flat, bedded, sound stone *sound stone*, free from clay, of approved quality, and laid flush in good fresh-mixed cement mortar. The masonry must be well *well* bonded, built straight, plumb, level, and broken-jointed. No spalls will be allowed in the beds. All faces above ground must be neatly pointed with cement and the masonry capped with selected stones, as directed.

Box culverts.—Dry box-culvert masonry will be made of good square-shaped stone, of size and quality approved by the engineer, and laid in a manner satisfactory to him. For four feet from the ends the stones to be laid in good cement mortar.

130 Box-culvert masonry laid in mortar shall be built of good selected building stone of good quality and laid flush in good cement mortar to the satisfaction of the engineer.

The covering stones for all box culverts to be of approved thickness and to rest on the walls not less than eighteen inches.

Concrete.—Concrete must be composed of four measures of hard durable stone, of quality approved by the engineer, broken in pieces of uniform size, not over two (2) inches in any direction, free from clay and well screened, two measures of clean, sharp sand and one measure of best quality of hydraulic cement, all well mixed with clean water and well rammed in place in layers, as directed by the engineer.

Drain pipe.—Drain pipes may be used in localities where
131 a culvert not over two feet in diameter is required to be furnished by the bridge company.

The pipes must be laid on a solid foundation, carefully shaped to fit the pipe.

The joints must be completely filled with hydraulic cement mortar.

The ends of the pipe culverts must be carefully set in a wall of brick or stone of such shape and size as may be determined by the engineer; the pipe must be protected by a covering of earth not less than two feet in thickness. The end walls, if of stone, will be paid for by the cubic yard; if of brick, by the thousand, under the proper classification for masonry.

The bedding will be paid for as concrete.

132 Slope walls.—Slope walls will be of such thickness and slope as may be determined by the engineer; the stones must reach entirely through the wall; they must not be less than four inches thick and twelve inches long; the- must be laid dry, with broken joints; joints to be close and free from spalls; the foundation must be prepared as directed by the engineer.

Paving.—Stone paving will be made by setting stone on edge from eight to fifteen inches in depth, breaking joints, as directed by the engineer.

133 Mortar.—Cement mortar in all classes of masonry must be made of one measure of good hydraulic cement and two measures of clean, sharp sand, or such other proportion as may be prescribed by the engineer, well mixed together with clean water, in clean mortar beds constructed of boards, and must be used immediately after being mixed.

All classes of masonry laid in cement must be neatly pointed with cement mortar finely tempered.

The foundation courses for all classes of masonry must be of large selected stones. No masonry of any kind will be covered up before being accepted by the engineer.

Stone masonry will be built according to the plans and instructions furnished by the engineer, and will be estimated and paid for by the cubic yard, computing the actual solidity thereof. No constructive or conventional measurement will be allowed, any rule or custom in the section of the country through — the road passes to the contrary notwithstanding.

Pile Trestle.

This will be built in accordance with standard plan.

134 Piles.—All piles must be of young, sound, and thrifty white or post oak or other timber equally good for the purpose, acceptable to the engineer; they must be at least ten (10) inches in diameter at the small end, and at the large end where sawed off of sufficient diameter to afford a full bearing to the cap and not exceeding sixteen inches; they must be straight, trimmed close, and have the bark taken off before being driven. The piles must be driven until they do not move more than three-quarters of an inch under the blow of a hammer weighing two thousand (2,000) pounds falling twenty-five feet, and must penetrate at least thirteen feet below surface of ground.

135 The- must be driven at the regular distances apart from centres, transversely and longitudinally, as required by plans, the piles of each bent being in a true vertical plane at right angles to line of roadway; they must be properly pointed and, if required, be shod with iron shoes of approved size and form, which will be paid for at same price with other iron used in trestle.

If necessary the piles must be capped with suitable iron rings to prevent splitting.

All piles injured in driving or driven out of place or line shall be replaced without additional charge.

Piles will be paid for by the lineal foot, counting only the actual number of feet left in the structure after completion.

Hewed piles.—If piles with sap hewed off for full length are used the foregoing specifications apply, excepting the size at butt
136 shall not exceed fourteen inches; the score hacks should point toward the small end.

Creosoted piles.—Creosoted piles will be governed by same specifications as untreated piles; they must be thoroughly creosoted through their entire length and in such manner as to secure an impregnation sufficient to absorb a minimum of one and a half gallons of liquid to the cubic foot.

Timber.—The timber may be white oak or long-leaved yellow pine, or both, or a portion may be creosoted, as hereinafter designated; it must be sawed true and out of wind, free from shakes, loose or rotten knots, sap, or any other defect which would impair its strength or durability.

Creosoted timber.—If creosoted timber is used the same re-
137 quirements as to impregnation will obtain as in case of piles.

Iron.—Iron of various classes must be of good and acceptable quality.

Workmanship.—All framing must be done in a thorough and workmanlike manner; no open joints or shims will be allowed; the bearings of caps and stringers must all be sized and perfect bearings secured throughout.

Measurement.—All timber in trestles will be paid for by the thousand feet, board measure, counting that actually left in the structure after completion.

Contingencies.—The contractor must furnish all materials and labor incidental to or in any way connected with the manufacture, transportation, erection, and maintenance of the structures, which must be kept in thorough repair and adjustment until the
138 final acceptance of entire work under contract.

General conditions applicable to all work.—No material must be used before it has been inspected and received by the engineer, who will submit it to such tests as he may desire. All rejected material must be taken away from side of work without delay. All work not acceptable to engineer must be taken down and rebuilt on his order at the contractor's cost.

Commodious passing places for public and private roads shall be made and kept in good condition by the contractor, and he shall provide and maintain good and sufficient fences for keeping
139 up enclosures and the preservation of crops.

The contractor will be held responsible for trespass or damage to the adjacent properties or for any acts or omissions on part of himself or employees.

Any parties, under the direction of the engineer, shall be permitted to pass over any part of the work and to haul over the same

any material required for the road, such persons not interfering with the work of the contractor. Right of way and necessary lands for borrow pits, channels, ditches, roads, etc., will be provided by the bridge company as early as practicable, but the bridge company is not to be held responsible for any delay caused by legal
proceedings beyond its control. Contractors must preserve
140 bench marks and stakes. In case of neglect they will be
charged accordingly.

The prices bid must cover the cost of ditching, draining, watching, and all other items of expense in any way connected with the execution and maintenance of the work until it is formally accepted and received as completed.

The contractors take all risks from accidents, floods, and casualties of all kinds which may occur during the progress of the work, and shall make no charge for detention from such causes, but may be entitled, on account of such casualties, to a reasonable extension of time for the completion of the work.

The quantities marked on profile are approximate and not
141 binding. The relative amounts of trestle and earth work
may be changed at option of the engineer without prejudice. Contractors must satisfy themselves of the nature of the soil; of the general forms of the surface of the ground; of the quantites of material required for forming the embankments or other work, and of all matters which can in any way influence their contract, and no information on any such matters derived from the maps, plans, profiles, drawings, or specifications or from the engineer or his assistants will in any way relieve the contractor from any risks or from fulfilling all the specifications and conditions of this contract.

The engineer shall have power to direct the application of
142 force to any portion of the work which in his judgment requires it, and to order the increase or diminution of force at any point he may indicate.

Any omission to disapprove imperfect or defective material or work badly done at time of last monthly estimate shall not be construed as an acceptance of it.

All material used in construction of the Henderson Bridge railroad must be to the satisfaction of the engineer, and all the work is to — done in a thorough and workmanlike manner and subject to the constant supervision and inspection of the engineer or his assistants, and the decision of the engineer is to be final and conclusive.

The word engineer as used in these specifications refers to
143 the chief engineer or his authorized assistants.

Form of Proposal.

Proposals will be received for the work in the following manner, prices being named separately for each section:

Graduation.

Excavation, per cubic yard, ——.
Embankment, per cubic yard, ——.

Masonry.

Box-culvert masonry in cement, per cubic yard, ——.
Paving, per cubic yard, ——.
Brick-work, per thousand, ——.

Pile Trestling.

Sawed timber.—First. With all untreated timber stringers 14″ x 16″ in single-panel lengths, per thousand feet, B. M.,——.

Sawed timber.—Second. With all untreated timber stringers long-leaved yellow pine, two panel-lengths, packed with iron rings, two pieces 8″ x 16″, per thousand feet, B. M., ——.

144 Sawed timber.—Third. With piles, caps, and cross-section braces of creosoted timber, balance of untreated timber, with yellow pine packed stringers in two-panel lengths, two pieces 8″ x 16″ for sections 8, 9, and 10, ——.

Piles.—Untreated piles, per lineal foot, with bark taken off, ——; untreated piles, per lineal foot, with sap hewed off, ——; creosoted piles, per lineal foot, ——.

Iron-work.—Cast iron, per pound, ——; wrought iron, per pound, ——.

Terms of Payment.

Estimates will be made by the engineer at the end of each month of the quantity, character, and value of the work done during the month or since the last estimate, and eighty-five (85) per cent. of same will be paid on or before the fifteenth day of the succeeding month.

145 The fifteen per cent. retained will not be paid until all the work included in the contract has been completed.

The estimates, monthly and final, made by the engineer of the Henderson Bridge Company, as to quantity, character, and value of the work done, shall be conclusive and final, except for error founded in fraud or mistake.

Time of Completion.

The trestling, graduation, and masonry from station 0 to station three hundred and thirty-three must be completed by November first, 1884, and the entire work not later than December 15th, 1884.

Louisville, Ky., June 20th, 1884.

F. W. VAUGHN,
Chief Engineer.

146 Be it remembered that heretofore, to wit, on the 6th day of October, 1885, the following notice was filed with defendant's answer in the words and figures following, to wit:

Section.	Excavation.	Untreated piles with sap hewed off.	Creosoted piles.	Cast iron.	Wrought iron.
	Per cu	P'r lin. ft.	Per lin. ft.	Per lb.	Per lb.
1	0	0.33	------ ----	0.03	0.04
2	0	0.33	---- ------	0.03	0.04
3	0	0.33	------ ----	0.03	0.04
4	0	0.33	---- ------	0.03	0.04
5	0	0.33	------ ----	0.03	0.04
6	0	0.33	---- ------	0.03	0.04
7	0	0.33	------ ----	0.03	0.04
8	------	0.33	0.66½	0.03	0.04
9	---- --	0.33	0.66½	0.03	0.04
10	-----	0.33	0.66½	0.03	0.04

LOUISVILLE, KY., *July* 3*d*, 1884.

F. W. Vaughn

DEAR SIR ow enough to warrant you in making inquiries as
to our standing en'l Sam'l Thomas, Pres't E. T., V. & G. R. R., 110
Broadway, N. for Mr. Ryan, Whitler, Fastler & Kelly (formerly
owners Spring & Co., bankers, Bainbridge, O.; Post & Co., railway
supplies, Cinci Portsmouth, Ohio, and Brown, Howard & Co., of
Chicago, Ills. the work 60 teams of our own, and we have now
on hand a suffi in the city, at the Louisville Hotel, until Monday,
and would be g

Wallace M

Ver

McGRATH, SPELLACY & RYAN.

Section.	Excavation.	Embankment.	Box-culvert masonry in cement.	Paving.	Brick-work.	Pile trestling, sawed timber, with all untreated timber stringers 14″ x 16″, in single-panel lengths.	Pile trestling, sawed timber, with all untreated timberstringers long-leaved yellow pine, two-panel lengths, two pieces 8″ x 16″, in two-panel lengths.	Pile trestling, sawed timber, with piles, caps, & cross-braces of creosoted timber, balance of untreated timber, with yellow-pine stringers in two-panel lengths.	Untreated piles with bark taken off.	Untreated piles with sap hewed off.	Creosoted piles.	Cast iron.
	Per cu. yd.	*Per cub. yd.*	*Per cub. yd.*	*Per cub. yd.*	*Per 1,000.*	*P'r M, B. M.*	*Per M, B. M.*	*Per M, B. M.*	*Per lin. ft.*	*P'r lin. ft.*	*Per lin. ft.*	*Per lb.*
1	0.18	0.12	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
2	0.18	0.12	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
3	0.18	0.13	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
4	0.18	0.14½	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
5	0.18	0.14½	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
6	0.18	0.16	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
7	0.18	0.18	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03
8	------ ----	------ ----	------ ----	------ ----	------ ----	28.00	31.00	36.00	0.30	0.33	0.66½	0.03
9	------ ----	------ ----	------ ----	------ ----	------ ----	28 00	31.00	36.00	0.30	0.33	0.66½	0.03
10	------ ----	------ ----	------ ----	------ ----	------ ----	28.00	31.00	36.00	0.30	0.33	0.66½	0.03

LOUISVILLE, KY., *July 3d,*

F. W. Vaughn, Esq., chief engineer.

DEAR SIR: Above you will please find our bid for the work between Henderson and Evansville. If our bid is low enough to warrant you in making inq to our standing, we can refer you to the following named: For Mr. McGrath, Keystone National Bank, Erie, Pa.; Gen'l Sam'l Thomas, Pres't E. T., V. & G. R Broadway, N. Y.; Frost, Stearns & Hoover, gen'l contractors, Columbus & Cincinnati Midland R'y, Columbus, Ohio; for Mr. Ryan, Whitler, Fastler & Kelly (f owners Springfield Southern R. R.), Springfield, Ohio; Lagonda National Bank, Springfield, Ohio; Sparker, Hewitt & Co., bankers, Bainbridge, O.; Post & Co., supplies, Cincinnati, Ohio; for Mr. Spellacy, any bank in Westfield, N. Y.; Conneaut, Ohio; Tecumseh, Mich., or Portsmouth, Ohio, and Brown, Howard & Chicago, Ills. Maj. Ryan is worth $40,000, McGrath, $20,000, and Mr. Spellacy, $15,000. We have and will bring on the work 60 teams of our own, and we h on hand a sufficient plant in tools *in tools* to complete the work in the time specified. Our Mr. McGrath will remain in the city, at the Louisville Hotel, until and would be glad if you would send for him in case our bid is considered.

Wallace McGrath, Erie, Pa.; M. Spellacy, Sabine, Clinton Co., Ohio; Edward Ryan, Springfield, Ohio.

Very respectfully,

McGRATH, SPELLACY & R

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To the Henderson Bridge Company:

Take notice that the firm of McGrath, Spellacy & Ryan, who had the contract to — certain work of excavation and embankment on the railroad of the Henderson Bridge Company, are indebted to the undersigned, Daniel T. Hartnett and Thomas Hartnett, in the sum of two thousand two hundred and eighty-two ($2,282) dollars for work and labor done on section number four (4) and section number six (6) of the Henderson Bridge railroad, in the county of Vanderburgh, State of Indiana, being excavation and embankment done on said railroad; and the undersigned hold the Henderson Bridge Company responsible for the payment to them of said sum of money April 22nd, 1885.

DANIEL T. HARTNETT.
(Signed) TOM. HARTNETT.

147 Be it remembered that heretofore, to wit, on the 6th day of October, 1885, the defendants filed with their said answer a letter in the words and figures following, to wit:

(See table marked p. 148.)

149 Be it remembered that heretofore, to wit, on the 6th day of October, 1885, the defendants filed with their said answer a letter in the words and figures following, to wit:

THE HENDERSON BRIDGE COMPANY,
LOUISVILLE, KY., *July 8th*, 1885.

Messrs. McGrath, Spellacy, an- Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and trestling of the Henderson bridge railroad from station zero to station three hundred and thirty-three (333), in accordance with our specifications, is accepted. This comprises
150 all the work of the above character from sections one (1) to six (6), inclusive, and a portion of section seven (7).

It is understood that piles used are to be round with bark taken off; stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet apart between centres, as I may hereafter elect; in the former case cross-ties are to be eight (8) by eight (8) inches, ten (10) feet long; in the latter six (6) by eight (8) inches, nine (9) feet long; otherwise construction is to be as per standard plan.

It is also understood that should it be deemed desirable the
151 amount of trestling on these sections shown on profile exhibited at letting may be reduced without affecting prices name-. I am unexpectedly called from the city this evening and will not be able to prepare contract for signature before leaving; will have it drawn up in the course of a week and sent you for signature. In meantime you can proceed with the work the same as if contract had been duly executed.

Yours truly,
W. F. VAUGHN,
Chief Eng'r.

Section.	Excavation.	Untreated piles with sap hewed off.	Creosoted piles.	Cast iron.	Wrought iron.
	Per cu	P'r lin. ft.	Per lin. ft.	Per lb.	Per lb.
1	0	0.33	------ ----	0.03	0.04
2	0	0.33	---- ------	0.03	0.04
3	0	0.33	------ ----	0.03	0.04
4	0.	0.33	---- ------	0.03	0.04
5	0.	0.33	------ ----	0.03	0.04
6	0.	0.33	---- ------	0.03	0.04
7	0.	0.33	------ ----	0.03	0.04
8	------	0.33	0.66½	0.03	0.04
9	---- --	0.33	0.66½	0.03	0.04
10	-----	0.33	0.66½	0.03	0.04

LOUISVILLE, KY., *July 3d*, 1884.

F. W. Vaughn

DEAR SIR: ow enough to warrant you in making inquiries as
to our standin en'l Sam'l Thomas, Pres't E. T., V. & G. R. R., 110
Broadway, N. for Mr. Ryan, Whitler, Fastler & Kelly (formerly
owners Spring & Co., bankers, Bainbridge, O.; Post & Co., railway
supplies, Cinci Portsmouth, Ohio, and Brown, Howard & Co., of
Chicago, Ills. n the work 60 teams of our own, and we have now
on hand a suffi in the city, at the Louisville Hotel, until Monday,
and would be
Wallace M
Ver

McGRATH, SPELLACY & RYAN.

To the Henderson Bridge Company:

Take notice that the firm of McGrath, Spellacy & Ryan, who had the contract to — certain work of excavation and embankment on the railroad of the Henderson Bridge Company, are indebted to the undersigned, Daniel T. Hartnett and Thomas Hartnett, in the sum of two thousand two hundred and eighty-two ($2,282) dollars for work and labor done on section number four (4) and section number six (6) of the Henderson Bridge railroad, in the county of Vanderburgh, State of Indiana, being excavation and embankment done on said railroad; and the undersigned hold the Henderson Bridge Company responsible for the payment to them of said sum of money April 22nd, 1885.

DANIEL T. HARTNETT.
(Signed) TOM. HARTNETT.

147 Be it remembered that heretofore, to wit, on the 6th day of October, 1885, the defendants filed with their said answer a letter in the words and figures following, to wit:

(See table marked p. 148.)

149 Be it remembered that heretofore, to wit, on the 6th day of October, 1885, the defendants filed with their said answer a letter in the words and figures following, to wit:

THE HENDERSON BRIDGE COMPANY,
LOUISVILLE, KY., *July 8th*, 1885.

Messrs. McGrath, Spellacy, an- Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and trestling of the Henderson bridge railroad from station zero to station three hundred and thirty-three (333), in accordance with our specifications, is accepted. This comprises
150 all the work of the above character from sections one (1) to six (6), inclusive, and a portion of section seven (7).

It is understood that piles used are to be round with bark taken off; stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet apart between centres, as I may hereafter elect; in the former case cross-ties are to be eight (8) by eight (8) inches, ten (10) feet long; in the latter six (6) by eight (8) inches, nine (9) feet long; otherwise construction is to be as per standard plan.

It is also understood that should it be deemed desirable the
151 amount of trestling on these sections shown on profile exhibited at letting may be reduced without affecting prices name-. I am unexpectedly called from the city this evening and will not be able to prepare contract for signature before leaving; will have it drawn up in the course of a week and sent you for signature. In meantime you can proceed with the work the same as if contract had been duly executed.

Yours truly,
W. F. VAUGHN,
Chief Eng'r.

152 And the said defendant also moves the court for leave to make Daniel T. Hartnett and Thomas Hartnett parties defendant herein; and the court, having heard the argument of counsel upon said motion, doth now here overrule the same.

And come also the plaintiffs, by Mess. Gilchrist & De Bruler, their attorneys, and file their replication to the defendants' answer in the words and figures following, to wit:

In the Circuit Court of the United States, District of Indiana.

WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

153 Par. 1. For reply to the answer of the defendants in this action and to each paragraph of said answer, plaintiffs deny each and every allegation of said answer and of each paragraph of said answer.

Par. 2. For a reply to the second paragraph of said answer and to each paragraph of said answer, so much of the first paragraph of said answer as sets up the same matters that are contained in the second paragraph of said answer, plaintiffs say that the alleged repairs made by defendant to the railroad embankment and other parts of the work done by plaintiffs for defendant, and which are alleged to have cost five thousand five hundred dollars, were all done by defendant after defendant, by its engineers, had ac-
154 cepted the said embankment as fully completed in all respects according to the specifications; that the embankment and all other work done by plaintiffs for defendant was done under the constant supervision of defendant's engineers, who examined and approved all the earth and all material of all kinds that were put by plaintiffs in said work; and the defendant, after plaintiffs had completed said work, examined the same carefully and accepted the same, and laid the track of the defendant's railroad over said work and discharged plaintiffs from any further prosecution of said work for the reason that the same was fully completed.

Par. 3. For a further reply to said second paragraph of
155 said answer and to so much of the first paragraph thereof as sets up the same matters averred in the second paragraph thereof, plaintiffs say that all the delay therein averred of the completion of the work therein mentioned was caused by the defendant's neglect to procure the right of way of the different owners of the land through which said railroad runs. Said rights of way were not procured until in the month of December, 1884, and plaintiffs could not until that time begin the work of the graduation of said railroad over a large part of its route, and the said graduation could not in consequence of said delay so caused by defendant be completed by the time fixed in the specifications.

156 That after such delay by defendant defendant required plaintiffs to go on and complete said work, and said work was completed under the constant supervision of the engineers of

the defendant, who examined and approved all earth and all other materials put by plaintiffs or their subcontractors in said work and approved the same, and after said work was completed they accepted the said work as completed in full compliance with the specifications filed with the complaint.

GILCHRIST & DE BRULER,
Plaintiffs' Attorneys.

And now here, by agreement of parties, this cause is set down for trial at Evansville on the 2d Tuesday in January, A. D. 1886.

157 And afterwards, to wit, on Tuesday, January 12, A. D. 1886, the following further proceedings in said cause were had, to wit:

WALLACE MCGRATH *et als.*
v. No. 364.
THE HENDERSON BRIDGE COMPANY.

Transfer.

Comes now the defendant, by its attorneys, and files its answer, in 3 paragraphs, in the words and figures following, to wit:

Circuit Court of the United States for the District of Indiana.

WALLACE MCGRATH, MATHEW SPELLACY, and EDWARD RYAN
v.
THE HENDERSON BRIDGE COMPANY.

158 Par. 1. The defendant, The Henderson Bridge Company, for its amended answer to the plaintiffs' complaint herein, says it denies each and every allegation thereof.

Par. 2. The said defendant, further answering herein, says it denies that it is indebted to the complainants in the sum of twenty-three thousand six hundred and sixty-seven dollars or in any other sum. The defendant admits that the plaintiffs made to it a proposition to do certain work in construction of its railroad from its bridge over the Ohio river, at the city of Henderson, Kentucky, to a point on the line of the Southeast & St. Louis railway near the city of Evansville, in the State of Indiana, and that the prices in said proposition were as stated in the complaint. The said proposition was in writing, of date July 3d, 1884, and was 159 signed by the plaintiffs under the firm name of McGrath, Spellacy & Ryan. A copy of said proposition is herewith filed as part hereof, marked Exhibit "A." The said proposition was accepted by this defendant by the letter of its chief engineer, F. W. Vaughn, of date July 8th, 1884, addressed to the plaintiffs and the same — set forth in their complaint and to the extent shown by said letter. A copy of the said letter is herewith filed as part hereof, marked Exhibit "B." The said proposition of plaintiffs and the said letter of defendant's said engineer and the specifications therein referred to constitute the contract between plaintiffs and defend-

ants for the doing of said work. A profile of said road was
160 exhibited at the letting which indicated the general plan of said
work, but was subject to such alterations as are indicated in the said letter and specifications. Copies of said letter and specifications and the profile are herewith filed as part hereof, marked, respectively, Exhibit- "C & D." The copy of profile filed with the plaintiffs' complaint is not a full and complete copy of the said profile.

Defendant admits that plaintiffs put into embankments on the several sections of said railroad mentioned in their complaint and specified in their said proposition the quantities of earth stated in their complaint, but it says the whole of said embankments were included in the said contract of plaintiffs, and were made by them
under their said contract and for the prices therein stipulated.
161 It denies that plaintiffs declined to make the embankments
for the road crossings of their said railroad, or that they demanded of defendant or that defendant agreed to pay for said embankments for road crossings or any other embankments any other than the prices specified in their said contract.

The defendant admits that the plaintiffs made for it the following amount of excavation, as alleged in their complaint, viz:

On section one, 679 cubic yards.

On section one, 2,887 cubic yards.

On section two, 633 cubic yards.

But defendant says all said excavation was made under and included in plaintiffs' said contract, and denies that the item of 2,887
cubic yards of excavation was not included in their bid for
162 said work, or that it agreed to pay plaintiffs therefor what it
was reasonably worth or any other than the contract price.

Defendant denies that it required plaintiffs to make a continuous ditch along the foot of the easterly side of its railroad embankment along the whole of the work let to them, or that plaintiffs excavated the quantity of earth stated in their petition and charged in their account in the making of such ditch, or that plaintiffs made such ditch, or that defendant ever measured or authorized the measuring of such ditch, or that there is along its said road any ditch from which the measurement stated by plaintiffs in their complaint and account can be or would have been obtained.

The only work done by plaintiffs, at the request of defend-
163 ant or otherwise, for the purpose of making said pretended
ditch, was after the borrow pits were dug for the purpose of making the road embankments to connect said borrow pits by ditches where obstructions to the flow of water existed between them. In doing this they excavated not more than four thousand cubic yards of earth, for which they were entitled to eighteen cents per cubic yard. Defendant denies that plaintiffs refused to do said work for the contract price or that it agreed to pay them more than the contract price therefor.

And defendant denies each and every item for excavation men-

tioned in the complaint or charged in the account therewith
164 filed other than is hereinbefore admitted.

Defendant denies that it employed the plaintiff to make excavations for laying a pipe culvert in water or to lay pipe in such excavations or contracted to pay plaintiffs for same what it was reasonably worth, or that it employed plaintiffs to lay or that they did lay any such culvert which was not included in any bid of plaintiffs. The plaintiffs made to it a bid in writing to put in all the concrete and to lay in place all culvert pipe that might be required on the portion of defendant's road embraced in their contract, which was accepted by defendant and was in the words and figures following:

165 LOUISVILLE, *July 8th*, 1884.

F. W. Vaughn, Esq., chief eng'r the Henderson Bridge Co. R. R., Louisville, Ky.

DEAR SIR: We hereby propose to put in all the concrete required on sections No. 1 to sec. No. 7 of your road at $8.00 per cubic yard and to lay in place, in accordance with the specifications, all culvert pipe at twenty-five (25) cents per lineal foot of pipe, the railroad company furnishing and delivering the same at the site of the culvert.

Very respectfully,
McGRATH, SPELLACY & RYAN.

Accepted July 8th, 1884.
F. W. VAUGHN,
Chief Engineer.

Under said contract plaintiffs laid only 401 feet of such pipe, including the item "395 feet of drain pipe" mentioned in their
166 complaint and char-ed in their account, for which they were entitled to receive only the contract price of twenty-five cents per lineal foot; and defendant denies the item of $1,000.00 for excavating and laying pipe culvert in water claimed in the complaint and the same charged in their account.

Defendant denies that during the progress of the work it employed plaintiffs to make the inclined approaches of the road and farm crossings on one side of its railroad of piling and tressle-work, or that it agreed to pay plaintiffs for same what the doing of said work was reasonably worth. It says said work was included in the specifications, being part of the said contract of plaintiffs, and was
167 done under said contract, and plaintiffs *and plaintiffs* were entitled *to* only to contract price therefor. The work and labor of plaintiffs and the "timber and piling" used in the construction of said piling and tressle-work was not worth more than the sum of three thousand dollars.

The defendant admits that the plaintiffs laid a quantity of wooden "box drains" under certain road crossings, which was reasonably worth not more than the sum of two hundred and thirty-two and $\frac{49}{100}$ dollars. The defendant denies the whole balance of said claim of plaintiffs for six thousand dollars for "timber, piling, and box drains."

Defendant admits that the plaintiffs put in their said work three and nine-tenths cubic yards of concrete, made as alleged in 168 the complaint, but it was so made, not by the request of the defendants but by the choice and for the convenience of plaintiffs, and they are entitled to receive therefore only the contract price of eight dollars per cubic yard.

Defendant denies that the work included in plaintiffs' contract in the complaint mentioned for the graduation, masonry, and trestling of the portion of its road mentioned was fully completed by them by the 15th of March, 1885, or that they have at all completed same, or that this defendant has ever "formally accepted or received same as completed" under the contract.

The said specifications provide that "the prices bid must 169 cover the cost of ditching, draining, watching, and all other items of expense in any way connected with the execution and maintenance of the work until it is formally accepted and received as completed;" also that the contractors take all risks from accidents, floods, and casualties of all kinds which may occur during the progress of the work, and also that "care must be taken to exclude mud, muck, frozen earth, and all perishable materials from embankments." Now defendant says that by the terms of plaintiffs' said contract the trestling, graduation, and masonry included therein were to have been completed by November 1st, 1884, and long after said time, to wit, in the month of January, 1885, the 170 plaintiffs, in violation of their said contract, built a large part of the said embankment, in sections three to seven, inclusive, of mud, muck, and frozen earth, and on the approach of spring, and before the completion of their said work, and before the acceptance thereof, the said frozen earth thawed and dissolved and the said embankment in many places sank down or fell to pieces, so that it was incomplete and not in a condition to be accepted under their said contract. It was the duty of plaintiffs to complete the said embankment ready to receive the cross-ties and rails, and to maintain the said work in thorough repair until the final completion 170½ and acceptance of the whole work, and defendant notified them of the said condition of the said embankment and requested them to repair it, but they refused to do so, and defendant was compelled to repair said embankment and fix same to receive the cross-ties and rails at a necessary cost of five thousand five hundred dollars, no part of which sum has been paid or accounted for to defendant by plaintiffs. The said contract of plaintiffs provides that eighty-five per cent. of the work done shall be paid to them on monthly estimates, but that the fifteen per cent. retained will not be paid *will not be paid* until all the work included in the contract has been completed.

171 Now, defendant says that the work so done by it was in necessary reparation of the work done by plaintiffs, and for which recovery is sought in their complaint, and was included in their said contract, and that by reason of the facts above stated plaintiffs are

not entitled to recover, but defendant is entitled to retain the said sum of five thousand five hundred dollars.

Defendant admits the items for handling gravel and cross-ties, but denies each and every item claimed in the complaint or charged in the account therewith filed not hereinbefore admitted.

Defendant denies that the work done by plaintiffs and the
172 material furnished by them in constructing said railway
amounted to the sum of seventy-four thousand one hundred
and sixty-one and fourteen one-hundred- dollars, but says it
amounted to only the sum of fifty thousand four hundred and
ninety-eight and eighty one-hundred- dollars, and that the whole
thereof has been paid. The defendant denies each and every allegation
of the complaint not herein admitted.

Defendant says that on the 1st day of August, 1884, one Henry
Wassen filed and caused to be recorded in the office of the recorder
of Vanderburgh county a notice of a lien on its railroad embankment
and upon the grading, excavation, and the track thereof for
the sum of fifteen hundred dollars due him by the plaintiffs
173 for work and labor done by him as a subcontractor under
plaintiffs in making such embankment, grading, excavation,
and track in section number four of its said railroad. A copy of
said notice is herewith filed as a part hereof. No part of said sum,
so far as defendant knows, is informed, or has reason to believe, has
been paid; and on the 24th day of April, 1885, David S. Hartnett
and Sam. Hartnett caused to be served on this defendant a notice of
a claim in their favor and against the plaintiffs for the sum of two
thousand two hundred and eighty-two dollars for work and labor
done by them for plaintiffs on section No. 4 and section No.
174 6, being excavation and embankment done on defendant's
railroad, and that they hold this defendant responsible for
the payment to them of the said sum of money. A copy of said
notice is herewith filed as part hereof.

Defendant has no knowledge nor any information sufficient to form a belief that any part of the said sum has been paid.

The said claims are asserted under and in accordance with an act
of the General Assembly of the State of Indiana entitled "An act
concerning liens of mechanics, laborers, and material men," approved
March 6th, 1883, which said act provides security for laborers
and subcontractors against the corporation owning a rail-
175 road and against its road upon such notice.

By reason of the facts alleged the said Henry Wassen, Daniel S. Hartnett, and Sam. Hartnett are necessary parties to this suit, and a complete determination of the controversy herein cannot be had without their presence. Defendant prays that the said Henry Wassen, Daniel Hartnett, and Sam. Hartnett be made parties to this suit for process against them, and that they be required to show what interest, if any, they have in the matters in controversy in this suit.

Defendant prays to be dismissed with its costs and for all proper relief.

Par. 3. The defendant, by way of counter-claim against the
176 plaintiffs, says that in the month of July, 1884, the plaintiffs
entered into a contract with this defendant to do the graduation,
masonry, and tresseling of its railroad from sections one to six,
inclusive, and a part of section seven, and being the same contract
in their complaint mentioned. The said contract consisted of a
bid and proposition of plaintiffs, in writing, of date July 3, 1884,
the letter of F. W. Vaughn, the chief engineer of this defendant,
addressed to and received by them, of date July 8th, 1884, and the
specifications referred to in said letter, copies of all which are filed
with the second paragraph of this answer and are here re-
177 ferred to and made part hereof.

Now, defendant says the work included in said contract
was not completed by plaintiffs and has not been "formally accepted
and received by the defendant as complete." The plaintiffs' said
contract provides that "the prices bid must cover the cost of ditching,
draining, watching, and all other items of expense in any way
connected with the execution and maintenance of said work until
it is formally accepted and received as completed," and also that
the contractors take all risks from accidents, floods, and casualties
of all kinds which may occur during the progress of the work,
and also that "care must be taken to exclude mud, muck,
178 and frozen earth and all perishable materials from the embankments."

Now, defendant says that by the terms of plaintiffs' said contract
the trestling, graduation, and masonry included therein were to have
been completed by November 1st, 1884, and long after said time, to
wit, in the month of January, 1885, the plaintiffs, in violation of
their said contract, built a large part of the said embankment in
sections three to seven, inclusive, of mud, muck, and frozen earth, and
on the approach of spring and before the completion of their said work
and before the acceptance thereof the said embankments in many
places sank down and fell to pieces, so that it was incomplete and
179 not in a condition to be accepted under their said contract.
It was the duty of plaintiffs to complete the said embankment
ready to receive the superstructure of rails and cross-ties and
to maintain the same in repair until the final completion and acceptance
of the whole work, and defendant notified them of the
said condition of the said embankment and requested them to repair
it, but they refused to do so, and defendant was compelled to
repair said embankment at a necessary cost of five thousand five
hundred dollars. No part of said sum has been paid or accounted
for by plaintiffs to defendant.

Now, defendant says that the work so done by it was in
180 necessary reparation of the work done by plaintiffs and was
included in their said contract and should have been done
by them without any charge therefor; and so defendant says it has
the right to demand and receive of plaintiffs the said sum; wherefore
it prays judgment against the plaintiffs for the said sum of five
thousand and five hundred dollars for its costs and for all proper
relief.

VANCE & WOOD,
Att'ys for Def't.

Inclusive.

Section.	Excavation.	Untreated piles with sap hewed off.	Creosoted piles.	Cast iron.	Wrought iron.
	Per cu.	*Per lin. ft.*	*Per lin. ft.*	*Per lb.*	*Per lb.*
1	0.	0.33	------ ----	0.03	0.04
2	0.	0.33	---- ------	0.03	0.04
3	0.	0.33	------ ----	0.03	0.04
4	0.	0.33	---- ------	0.03	0.04
5	0.	0.33	------ ----	0.03	0.04
6	0.	0.33	---- ------	0.03	0.04
7	0.	0.33	------ ----	0.03	0.04
8	------ -	0.33	0.66½	0.03	0.04
9	---- ---	0.33	0.66½	0.03	0.04
10	----- -	0.33	0.66½	0.03	0.04

LOUISVILLE, KY., *July 3d*, 1884.

F. W. Vaughn,

DEAR SIR; w enough to warrant you in making inquiries as to our standing n'l Sam'l Thomas, Pres. E. T., V. & G. R. R., 110 Broadway, N. Y for Mr. Ryan, Whitley, Fastler & Kelly (formerly owners Springfi Co., bankers, Bainbridge, O.; Post & Co., railway supplies, Cincin ortsmouth, Ohio, and Brown, Howard & Co., of Chicago, Ills. the work 60 teams of our own, and we have now on hand a suffic city, at the Louisville Hotel, until Monday, and would be glad i

Wallace Mc

Very McGRATH, SPELLACY & RYAN.

"EXHIBIT A."

Bid for the Construction of the Railroad of the Henderson Bridge Co., Secs. 1 *to* 10, *Inclusive.*

Excavation.	Embankment.	Box-culvert masonry in cement.	Paving.	Brick-work.	Pile trestling, sawed timber, with all untreated timber stringers 14″ x 16″, in single-panel lengths.	Pile trestling, sawed timber, with all untreated timber stringers long-leaved yellow pine, two-panel lengths, two pieces 8″ x 16″, in two-panel lengths.	Pile trestling, sawed timber, with piles, caps, & cross-braces of creosoted timber, balance of untreated timber, with yellow-pine stringers in two-panel lengths.	Untreated piles with bark taken off.	Untreated piles with sap hewed off.	Creosoted piles.	Cast iron.	Wrought iron.
Per cu. yd.	*Per cub. yd.*	*Per cub. yd.*	*Per cub. yd.*	*Per* 1,000.	*P'r M. B. M.*	*Per M. B. M.*	*Per M. B. M.*	*Per lin. ft.*	*Per lin. ft.*	*Per lin. ft.*	*Per lb.*	*Per lb.*
0.28	0.22	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03	0.04
0.28	0.22	10.00	7.00	20.00	28.00	31.00	---- ------	0.30	0.33	---- ------	0.03	0.04
0.28	0.22	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03	0.04
0.28	0.24½	10.00	7.00	20.00	28.00	31.00	---- ------	0.30	0.33	---- ------	0.03	0.04
0.28	0.24½	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03	0.04
0.28	0.26	10.00	7.00	20.00	28.00	31.00	---- ------	0.30	0.33	---- ------	0.03	0.04
0.28	0.28	10.00	7.00	20.00	28.00	31.00	------ ----	0.30	0.33	------ ----	0.03	0.04
------	------	------	------	------	28.00	31.00	36.00	0.30	0.33	0.66½	0.03	0.04
------	------	------	------	------	28.00	31.00	36.00	0.30	0.33	0.66½	0.03	0.04
------	------	------	------	------	28.00	31.00	36.00	0.30	0.33	0.66½	0.03	0.04

LOUISVILLE, KY., *July 3d*, 1884.

ungles, Esq., chief engineer.

ar Sir: Above you will please find our bid for the work between Henderson and Evansville. If our bid is low enough to warrant you in making inquiries as anding, we can refer you to the following named: For Mr. McGrath, Keystone National Bank, Erie, Pa.; Gen'l Sam'l Thomas, Pres. E. T., V. & G. R. R., 110 N. Y.; Frost, Stearns & Hoover, gen'l contractors, Columbus & Cincinnati Midland R'y, Columbus, Ohio; for Mr. Ryan, Whitley, Fastler & Kelly (formerly Springfield Southern R. R.), Springfield, Ohio; Lagonda National Bank, Springfield, Ohio; Sparker, Hewit & Co., bankers, Bainbridge, O.; Post & Co., railway Cincinnati, Ohio; for Mr. Spellacy, any bank in Westfield, N. Y.; Conneaut, Ohio; Tecumseh, Mich., or Portsmouth, Ohio, and Brown, Howard & Co., of Ills. Mr. Ryan is worth $40,000, Mr. McGrath, $20,000, and Mr. Spellacy, $15,000. We have and will bring on the work 60 teams of our own, and we have now a sufficient plant in tools to complete the work in the time specified. Our Mr. McGrath will remain in the city, at the Louisville Hotel, until Monday, and glad if you would send for him in case our bid is considered.

Thos McGrath, Erie, Pa.; M. Spellacy, Sabine, Clinton Co., Ohio; Edward Ryan, Springfield, O.

Very respectfully,

McGRATH, SPELLACY & RYAN.

u
C.

7—

Be it remembered that heretofore, to wit, on the 12th day of January, 1886, there was filed with defendant's answer "Exhibit A," in the words and figures following to wit:

(See table marked p. 181.)

182 Be it remembered that heretofore, to wit, on the 12th day of January, 1886, there was filed with defendant's answer "Exhibit B," in the words and figures following, to wit:

"EXHIBIT B."

The Henderson Bridge Company.

LOUISVILLE, KY., *July 8th*, 1886.

Messrs. McGrath, Spellacy and Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and trestling of the Henderson Bridge railroad from station zero to station three hundred and thirty-three (333), in accordance with our specifications, is accepted. This comprises all the work of the above character from sections one (1) to six (6), inclusive, and a portion of section seven (7).

183 It is understood that piles used are to be round, with bark taken off; stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet apart between centres, as I may hereafter elect. In the former case cross-ties are to be eight (8) by eight (8) inches, ten (10) feet long; in the latter six (6) by eight (8) inches, nine (9) feet long; otherwise construction is to be as per standard plan.

It is also understood that should *that should* it be deemed desirable the amount of trestling on these sections shown on profile exhibited at letting may be reduced without affecting prices named. I am unexpectedly called from the city this evening and will not
184 be able to prepare contract for signature before leaving; will have it drawn up in the course of a week and sent you for signature. In meantime you can proceed with the work the same as if contract had been duly executed.

Yours truly, F. W. VAUGHN,
Chief Eng'r.

Be it remembered that heretofore, to wit, on the 12th day of January, 1886, there was filed with defendant's said answer "Exhibit C," in the words and figures following, to wit:

185 "EXHIBIT 'C.'"

OFFICE OF THE HENDERSON BRIDGE CO.,
LOUISVILLE, KY.

Specifications for the Graduation, Masonry, and Trestling of the Henderson Bridge Railroad.

Graduation—General.—Under this head will be included all excavations and embankments required for the formations of the road-bed, cutting all ditches and drains about or contiguous to the road, changes of channels of streams, excavation of the foundation pits for masonry, the excavation and embankment necessary for the
186 reconstructing of turnpikes or common roads, in cases where they are interfered with in the formation of the railroad, and all other excavations and embankments connected with or incident to the construction of the said railroad.

Clearing and Grubbing.

Clearing.—The lands of the company shall be cleared for the necessary distance each side of centre line, to the extent required by the engineer, of all trees, bushes, logs, and other perishable material, which shall be destroyed or deposited in heaps, as the engineer may direct. Large trees must be cut not more than two and one-half feet from the ground.

Grubbing.—All stumps, roots, logs, and other obstructions
187 shall be removed to a depth of two feet below subgrade line under embankments and slopes and in excavations and out of the way of ditches, and in such other places as the engineer may direct.

Fences, buildings, timber, and wood on the line of the road are the property of the railroad. They shall be cleared off by the contractor, piled up, and preserved for the use of the railroad without charge.

All refuse limbs or timber must be burned. The contract price for excavation and embankment must cover clearing and grubbing as well as all the items under that head. Contractors must bear this in mind.

Excavations.

188 Width and slope.—The road must be graded for a single track. The road-bed shall be of such width as the engineer may direct—about twenty-one feet in earth cuts.

The slopes shall be of such inclination as the engineer may designate.

Side ditches.—Side ditches in excavations must be parallel to the centre line and shaped in accordance with the standard cross-sections or such other sections as the engineer may direct.

At the lower end of excavations side ditches must diverge sufficiently to avoid washing of the embankments.

Standard side ditches will be made along all embankments of one foot or less in height.

Surface ditches.—Surface ditches will be made on the upper
189 side of excavations, of such size and in such location as may
be determined by the engineer.

Classification.—Excavations will be classified under the head of earth.

Earth.—Earth will include loam, clay, sand, gravel, marl, decomposed rock and slate, stones and boulders containing less than one cubic yard, and all other material not unquestionably rock.

Road and channel changes.—In road alterations or changes of water-courses, if the average distance hauled exceeds five hundred feet, the contractor will be entitled to an additional compensation
of one cent per cubic yard per hundred feet for such excess.
190 No haul shall be paid on excavation, except as specified
above.

Price for excavation.—The contract prices for excavation will include all bottoming, ditching, road crossing, alterations of roads and water channels; also construction of temporary roads. They will also apply to pits required for foundations.

Embankments.

Width and slopes.—The embankments will be fifteen feet wide on the top, with slopes generally of one and one-half horizontal to one vertical, unless otherwise determined by the engineer.

Manner of building, shrinkages, etc.—Embankments shall be built
according to instructions from the engineer or in layers of
191 such thickness as he may require, with scrapers. Such additional height above grade shall be given to embankments as the engineer may deem necessary to compensate for shrinkage and washing, with additional allowance.

Embankments about culverts and masonry of all kinds shall be built at such time, in such manner, and of such material as the engineer may direct.

The embankment generally is to be formed by borrowing equally from each side, in which case the crest of the borrow-pit slopes shall
not approach nearer than eight feet to the foot of the embank-
192 ment slopes, allowing fifteen feet additional on one side for a
second track.

The borrow pits shall be located by the engineer, and whenever practicable must be taken out in regular form, the side next to embankment in all cases to be sloped one and one-half horizontal to one vertical.

New channels for water-courses shall be excavated at such distance from the foot of the slope as the engineer may direct.

Care must be taken to exclude mud, muck, frozen earth, and all perishable materials from embankments.

Measurements.—All earth-work will be measured in accordance
with actual sections of finished roadway and adjuncts,
193 and separate prices for excavation and embankment must be
named.

Masonry.

Rubble.—Rubble masonry shall be built of large, flat, bedded, sound stone, free of clay, of approved quality, and laid flush in good, fresh-mixed cement mortar. The masonry must be well bonded, built straight, plumb, level, and broken-jointed. No spalls will be allowed in the beds. All faces above ground must be neatly pointed with cement and the masonry capped with selected stones, as directed.

194 Box culverts.—Dry box-culvert masonry will be made of good square-shaped stone, of size and quality approved by the engineer, and laid in a manner satisfactory to him. For four feet from the ends the stones to be laid in good cement mortar.

Box-culvert masonry laid in mortar shall be built of good selected building stone of good quality and laid flush in good cement mortar to the satisfaction of the engineer.

The covering stones for all box culverts to be of approved thickness and to rest on the walls not less than eighteen inches.

195 Concrete.—Concrete must be composed of four measures of hard durable stone, of quality approved by the engineer, broken in pieces of uniform size, not over two (2) inches in any direction, free from clay and well screened, two measures of clean, sharp sand and one measure of best quality of hydraulic cement, all well mixed with clean water and well rammed in place in layers, as directed by the engineer.

Drain pipe.—Drain pipes may be used in localities where a culvert not over two feet in diameter is required to be furnished by the bridge company.

The pipes must be laid on a solid foundation, carefully shaped to fit the pipe.

196 The joints must be completely filled with hydraulic cement mortar.

The ends of the pipe culverts must be carefully set in a wall of brick or stone of such shape and size as may be determined by the engineer; the pipe must be protected by a covering of earth not less than two feet in thickness. The end walls, if of stone, will be paid for by the cubic yard; if of brick, by the thousand, under the proper classification for masonry.

The bedding will be paid for as concrete.

197 Slope walls.—Slope walls will be of such thickness and slope as may be determined by the engineer; the stones must reach entirely through the wall; they must not be less than four inches thick and twelve inches long; they must be laid dry, with broken joints; joints to be close and free from spalls; the foundation must be prepared as directed by the engineer.

Paving.—Stone paving will be made by setting stone on edge from eight to fifteen inches in depth, breaking joints, as directed by the engineer.

198 Mortar.—Cement mortar in all classes of masonry must be made of one measure of good hydraulic cement and two measures of clean, sharp sand, or such other proportion as may be prescribed by the engineer, well mixed together with clean

water, in clean mortar beds constructed of boards, and must be used immediately after being mixed.

All classes of masonry laid in cement must be neatly pointed with cement mortar finely tempered.

The foundation courses for all classes of masonry must be of large
selected stones. No masonry of any kind will be covered up before
being accepted by the engineer. Stone masonry will be built
199 according to the plans and instructions furnished by the
engineer, and will be estimated and paid for by the cubic
yard, computing the actual solidity thereof. No constructive or
conventional measurement will be allowed, any rule or custom in
the section of the country through which the road passes to the
contrary notwithstanding.

Pile Trestle.

This will be built in accordance with standard plan.

Piles.—All piles must be of young, sound, and thrifty white or
post oak or other timber equally good for the purpose, accept-
200 able to the engineer; they must be at least ten (10) inches in
diameter to afford a full bearing to *to* the cap and not exceed-
ing sixteen *sixteen* inches; they must be straight, trimmed close, and
have the bark taken off before being driven. The piles must — driven
until they do not move more than three-quarters of an inch under
the blow of a hammer weighing two thousand (2,000) pounds fall-
ing twenty-five feet, and must penetrate at least thirteen feet below
the surface of the ground.

201 They must be driven at the regular distances apart from centres, transversely and longitudinally, as required by plans, the piles of each bent being in a true vertical plane at right angles to line of roadway; they must be properly pointed and, if required, be shod with iron shoes of approved size and form, which will be paid for at same price with other iron used in trestle. If necessary the piles must be capped with suitable iron rings to prevent splitting.

All piles injured in driving or driven out of place or line shall be replaced without additional charge.

202 Piles will be paid for by the lineal foot, counting only the actual number of feet left in the structure after completion.

Hewed piles.—If piles with sap hewed off for full length are used the foregoing specifications apply, excepting the size at butt shall not exceed fourteen inches; the score hacks should point toward the small end.

Creosoted piles.—Creosoted piles will be governed by same speci-
fications as untreated piles; they must be thoroughly creo-
203 soted through their entire length and in such a manner as to
secure an impregnation sufficient to absorb a minimum of
one and a half gallons of liquid to the cubic foot.

Timber.—The timber may be of white oak or long-leaved yellow pine, or both, or a portion may be creosoted, as hereafter designated; it must be sawed true and out of wind, free from shakes, loose or rotten knots, sap, or any other defect which would impair its strength or durability.

Creosoted timber.—If creosoted timber is used the same
204 requirements as to impregnation will obtain as in case of piles.

Iron.—Iron of the various class- must be of good and acceptable quality.

Workmanship.—All framing must be done in a thorough and workmanlike manner; no open joints or ship*s* will be allowed; the bearings of caps and stringers must all be sized and perfect bearings secured throughout.

Measurement.—All timber in trestles will be paid for by the thousand feet, board measure, counting that actually left in the structure after completion.

Contingencies.—The contractor must furnish all materials
205 and labor incidental to or in any way connected with the manufacture, transportation, erection, and maintenance of the structures, which must be kept in thorough repair and adjustment until the final acceptance of entire work under contract.

General conditions applicable to all work.—No material must be used before it has been inspected and received by the engineer, who will submit it to such tests as he may desire. All rejected material must be taken away from side of work without delay.
206 All work not acceptable to the engineer must be taken down and rebuilt on his order at the contractor's cost.

Commodious passing places for public and private roads shall be made and kept in good condition by the contractor, and he shall provide and maintain good and sufficient fences for keeping up enclosures and the preservation of crops.

The contractor will be held responsible for trespass or damage to the adjacent properties or for any acts or omissions on part of himself or employees.
207 Any parties, under the direction of the engineer, shall be permitted to pass over any part of the work and to haul over the same any material required for the road, such persons not interfering with the work of the contractor.

Right of way and necessary lands for borrow pits, channels, ditches, roads, etc., will be provided by the bridge company as early as practicable, but the bridge company is not to be held responsible for any delay caused by legal proceedings beyond its control.

Contractors must preserve bench marks and stakes. In case
208 of neglect they will be charged accordingly.

The prices bid must cover the cost of ditching, draining, watching, and all other items of expense in any way connected with the execution and maintenance of the work until it is formally accepted and received as completed.

The contractors take all risks from accidents, floods, — casualties of all kinds which may occur during the progress of the work, and shall make no charge for detention from such causes, but may be entitled, on account of such casualties, to a reasonable
209 extension of time for the completion of the work.

The quantities marked on profile are approximate and

not binding. The relative amounts of trestle and earth work may be changed at option of the engineer without prejudice. Contractors must satisfy themselves of the nature of the soil; of the general forms of the surface of the ground; of the quantities of material required for forming the embankments or other work, and of all matters which can in any way influence their con-
tract, and no information on any such matters derived
210 from the maps, plans, profiles, drawings, or specifications
or from the engineer or his assistants will in any way relieve
the contractor from any risks or from fulfilling all the specifications and conditions of this contract.

The engineer shall have power to direct the application of force to any portion of the work which in his judgment requires it, and to order the increase or diminution of force at any point he may indicate.

Any omission to disapprove imperfect or defective ma-
211 terial or work badly done at time of last monthly estimate
shall not be construed as an acceptance of it.

All material used in construction of the Henderson Bridge railroad must be to the satisfaction of the engineer, and all the work is to be done in a thorough and workmanlike manner and subject to the constant supervision and inspection of the engineer or his assistants, and the decision of the engineer is to be final and conclusive.

The word engineer as used in these specifications refers to
212 the chief engineer or his authorized assistants.

Form of Proposal.

Proposals will be received for the work in the following manner, prices being named separately for each section:

Graduation.

Excavation, per cubic yard, ——.
Embankment, per cubic yard, ——.

Masonry.

Box-culvert masonry in cement, per cubic yard, ——.
Paving, per cubic yard, ——.
Brick-work, per thousand, ——.

Pile Trestling.

Sawed timber.—First. With all untreated timber stringers 14″ x 16″ in single-panel lengths, per thousand feet, B. M., ——.

Sawed timber.—Second. With all untreated timber stringers
213 long-leaved yellow pine, two panel-length-, packed with iron
rings, two pieces 8″ x 16″, per thousand feet, B. M., ——.

Sawed timber.—Third. With piles, caps, and cross-section braces of creosoted timber, balance of untreated timber, with yellow pine packed stringers in two-panel lengths, two pieces 8″ x 16″ for sections 8, 9, and 10, ——.

Piles.—Untreated piles, per lineal foot, with bark taken off, ——; untreated piles, per lineal foot, with sap hewed off, ——; creosoted piles, per lineal foot, ——.

Iron-work.—Cast iron, per pound, ——; wrought iron, per pound, ——.

214 *Terms of Payment.*

Estimates will be made by the engineer at the end of each month of the quantity, character, and value of the work done during the month or since the last estimate, and eighty-five (85) per cent. of same will be paid on or before the fifteenth day of the succeeding month.

The fifteen per cent. retained will not be paid until all the work included in the contract has been completed.

The estimates, monthly and final, made by the engineer of the Henderson Bridge Company, as to quantity, character, and value of the work done, shall be conclusive and final, except for error founded in fraud or mistake. 215

Time of Completion.

The trestling, graduation, and masonry from station 0 to station three hundred and thirty-three must be completed by November first, 1884, and the entire work not later than December fifteenth, 1884.

Louisville, Ky., June 20th, 1884.

F. W. VAUGHN,
Chief Engineer.

Be it remembered that heretofore, to wit, on the 12 day of January, 1886, there was filed with defendant's answer a notice in the words and figures following, to wit:

216 The Henderson Bridge Company:

Take notice that the firm of McGrath, Spellacy & Ryan, who had the contract to — certain work of excavation and embankment on the railroad of the Henderson Bridge Company, are indebted to the undersigned, Daniel T. Hartnett and Thomas Hartnett, in the sum of two thousand two hundred and eighty-two ($2,282) dollars for work and labor done on section number four (4) and section number six (6) of the Henderson Bridge railroad, in the county of Vanderburgh, State of Indiana, being excavation and embankment done on said railroad; and the undersigned hold the Henderson Bridge Company responsible for the payment to them of said sum of money April 22nd, 1885.

(Signed) DANIEL T. HARTNETT.
TOM HARTNETT.

217 And comes also the plaintiffs and file *its* reply in the words and figures following, to wit:

In the Circuit Court of the United States, District of Indiana.

WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN
v.
THE HENDERSON BRIDGE COMPANY.

Par. 1. For reply to the answer of the defendants in this action and to each paragraph of said answer, plaintiffs deny each and every allegation of said answer and of each paragraph of said answer.

Par. 2. For a reply to the second paragraph of said answer 218 and to each paragraph of said answer, so much of the first paragraph of said answer as sets up the same matters that are contained in the second paragraph of said answer, plaintiffs say that the alleged repairs made by defendant to the railroad embankment and other parts of the work done by plaintiffs for defendant, and which are alleged to have cost five thousand five hundred dollars, were all done by defendant after defendant, by its engineers, had accepted the said embankment as fully completed in all respects according to the specifications; that the embankment and all other work done by plaintiffs for defendant was done under the 219 constant supervision of defendant's engineers, who examined and approved all the earth and all material of all kinds that were put by plaintiffs in said work; and the defendant, after plaintiffs had completed said work, examined the same carefully and accepted the same, and laid the track of the defendant's railroad over said work and discharged plaintiffs from any further prosecution of said work for the reason that the same was fully completed.

Par. 3. For a further reply to said second paragraph of said answer and to so much of the first paragraph thereof as sets up 220 the same matters averred in the second paragraph thereof, plaintiffs say that all the delay therein averred of the completion of the work therein mentioned was caused by the defendant's neglect to procure the right of way of the different owners of the land through which said railroad runs. Said rights of way were not procured until in the month of December, 1884, and plaintiffs could not until that time begin the work of the graduation of said railroad over a large part of its route, and the said graduation could not in consequence of said delay so caused by defendant be completed by the time fixed in the specifications.

221 That after such delay by the defendant defendant required plaintiffs to go on and complete said work, and said work was completed under the constant supervision of the engineers of the defendant, who examined and approved all earth and all other materials put by plaintiffs or their subcontractors in said work and approved the same, and after said work was completed they accepted the said work as completed in full compliance with the specifications filed with the complaint.

GILCHRIST & DE BRULER,
Plaintiffs' Attorneys.

packed stringers in two-panel lengths, two pieces 8″ x 16″ for sections 8, 9, and 10, ——.

Piles.—Untreated piles, per lineal foot, with bark taken off, ——; untreated piles, per lineal foot, with sap hewed off, ——; creosoted piles, per lineal foot, ——.

Iron-work.—Cast iron, per pound, ——; wrought iron, per pound, ——.

214 *Terms of Payment.*

Estimates will be made by the engineer at the end of each month of the quantity, character, and value of the work done during the month or since the last estimate, and eighty-five (85) per cent. of same will be paid on or before the fifteenth day of the succeeding month.

The fifteen per cent. retained will not be paid until all the work included in the contract has been completed.

The estimates, monthly and final, made by the engineer of the Henderson Bridge Company, as to quantity, character, and 215 value of the work done, shall be conclusive and final, except for error founded in fraud or mistake.

Time of Completion.

The trestling, graduation, and masonry from station 0 to station three hundred and thirty-three must be completed by November first, 1884, and the entire work not later than December fifteenth, 1884.

Louisville, Ky., June 20th, 1884.

F. W. VAUGHN,
Chief Engineer.

Be it remembered that heretofore, to wit, on the 12 day of January, 1886, there was filed with defendant's answer a notice in the words and figures following, to wit:

216 The Henderson Bridge Company:

Take notice that the firm of McGrath, Spellacy & Ryan, who had the contract to — certain work of excavation and embankment on the railroad of the Henderson Bridge Company, are indebted to the undersigned, Daniel T. Hartnett and Thomas Hartnett, in the sum of two thousand two hundred and eighty-two ($2,282) dollars for work and labor done on section number four (4) and section number six (6) of the Henderson Bridge railroad, in the county of Vanderburgh, State of Indiana, being excavation and embankment done on said railroad; and the undersigned hold the Henderson Bridge Company responsible for the payment to them of said sum of money April 22nd, 1885.

(Signed) DANIEL T. HARTNETT.
TOM HARTNETT.

217 And comes also the plaintiffs and file *its* reply in the words
and figures following, to wit:

In the Circuit Court of the United States, District of Indiana.

WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN
v.
THE HENDERSON BRIDGE COMPANY.

Par. 1. For reply to the answer of the defendants in this action and to each paragraph of said answer, plaintiffs deny each and every allegation of said answer and of each paragraph of said answer.

Par. 2. For a reply to the second paragraph of said answer
218 and to each paragraph of said answer, so much of the first
paragraph of said answer as sets up the same matters that
are contained in the second paragraph of said answer, plaintiffs say
that the alleged repairs made by defendant to the railroad em-
bankment and other parts of the work done by plaintiffs for defend-
ant, and which are alleged to have cost five thousand five hundred
dollars, were all done by defendant after defendant, by its engineers,
had accepted the said embankment as fully completed in all respects
according to the specifications; that the embankment and all other
work done by plaintiffs for defendant was done under the
219 constant supervision of defendant's engineers, who exam-
ined and approved all the earth and all material of all kinds
that were put by plaintiffs in said work; and the defendant, after
plaintiffs had completed said work, examined the same carefully and
accepted the same, and laid the track of the defendant's railroad over
said work and discharged plaintiffs from any further prosecution of
said work for the reason that the same was fully completed.

Par. 3. For a further reply to said second paragraph of said an-
swer and to so much of the first paragraph thereof as sets up
220 the same matters averred in the second paragraph thereof,
plaintiffs say that all the delay therein averred of the com-
pletion of the work therein mentioned was caused by the defend-
ant's neglect to procure the right of way of the different owners of
the land through which said railroad runs. Said rights of way
were not procured until in the month of December, 1884, and plain-
tiffs could not until that time begin the work of the graduation of
said railroad over a large part of its route, and the said graduation
could not in consequence of said delay so caused by defendant be
completed by the time fixed in the specifications.

221 That after such delay by the defendant defendant required
plaintiffs to go on and complete said work, and said work
was completed under the constant supervision of the engineers of
the defendant, who examined and approved all earth and all other
materials put by plaintiffs or their subcontractors in said work and
approved the same, and after said work was completed they ac-
cepted the said work as completed in full compliance with the speci-
fications filed with the complaint.

GILCHRIST & DE BRULER,
Plaintiffs' Attorneys.

222 And comes also the parties plaintiff and defendant herein,
by counsel, and also come Daniel T. Hartnett and Thomas
Hartnett, partners under and by the firm name of Daniel T. Hartnett
& Son, and Henry Wasson and John Robinson, and it appearing
that the plaintiffs are indebted to said Hartnetts, Wasson, and
Robinson severally in large sums of money for work and labor performed
by them as subcontractors under the plaintiffs on the Henderson
Bridge railway, built by the defendant, and now here, by
consent of all the parties, said Hartnetts, Wasson, and Robinson
223 are made parties defendant hereto, and leave is given
them to file their cross-complaints against the plaintiffs and
defendant; and now here it is stipulated and agreed in open court,
all the parties hereto consenting, that out of the proceeds of any judgment
that may be rendered — this action in favor of the plaintiffs
and against the defendant, the bridge company, the said bridge
company shall pay said Hartnetts, Wasson, and Robinson the
amounts severally due and owing them as subcontractors, and this
stipulation shall operate as assignment to said Hartnetts,
224 Wasson, and Robinson of so much of the claim of the plaintiffs
and any judgment which they may recover against the
said bridge company as may be necessary to pay the amounts due
to the said Hartnetts, Wasson, and Robinson as subcontractors.

This stipulation shall not prejudice the rights of said Hartnetts or
Wasson in any lien they may have against said bridge company,
nor conclude them nor said Robinson from bringing an action
against said plaintiffs in the event plaintiffs shall not recover
225 in this action a sum sufficient to pay the respective claims of
said Hartnetts, Wasson, and Robinson.

Be it remembered that on the day and date last aforesaid the following further proceedings in said cause were had, to wit:

WALLACE MCGRATH *et als.*
v.
THE HENDERSON BRIDGE COMPANY.
} No. 364.

Transfer

Comes now the defendant, by its attorneys, and moves the
226 court to continue this cause until the next term of this court,
on account of the absence of a material party to the defense,
and the court, being advised in the premises, grants the prayer of
the defendant for the continuance at the costs of the defendant.

It is thereupon ordered and adjudged by the court that the plaintiffs recover of and from the said defendant the costs of the continuance of this suit until the next term, taxed at $—.

227 And afterwards, to wit, on Wednesday, the 7th day of April, A. D. 1886, the following further proceedings in said cause were had, to wit:

WALLACE MCGRATH *et als.*
v.
THE HENDERSON BRIDGE COMPANY

Come now the plaintiffs, by counsel, and comes also the defendant,
by counsel, and upon motion of counsel for the plaintiffs parts of the
deposition of the witness Nichols are suppressed and stricken out, as
indicated in the deposition.
228 And now here, the issues being joined, come the respective
parties, by counsel, and this cause is set down for trial before
a jury.

Whereupon come the jury, to wit, William A. Waters, John A.
Smith, Washington W. Cullop, George D. Abraham, W. W. Kendall,
Isaac M. Gladish, Jackson Martin, George W. Fuller, Squire Admire,
Moses Reedy, James Willis, and William Becker, who, being empannelled and sworn to try the cause, enter the panel and, having
heard part of the evidence, are allowed by the court to separate
229 under instructions until to-morrow morning at 9 o'clock a. m.

And afterwards, to wit, on Thursday, the 8th day of April, A. D.
1886, the following further proceedings in said cause were had, to wit:

WALLACE MCGRATH *et al.*
v.
THE HENDERSON BRIDGE COMPANY.
} No. 364.

Transfer.

Come now the parties, by counsel, and also the jury, and resume
the consideration of this cause, and, have- the same under con-
230 sideration at the hour of adjournment, *and* the jury — allowed
to separate under the instructions of the court until to-morrow morning at 9 o'clock a. m.

And afterwards, to wit, on Friday, the 9th day of April, A. D. 1886,
the following further proceedings in said cause were had, to wit:

231 WALLACE MCGRATH, EDWARD RYAN, MATTHEW SPELLACY
v.
THE HENDERSON BRIDGE COMPANY, DANIEL T. HARTNETT, Thomas Hartnett, Henry Wasson, John Robinson.
} No. 364.

Transfer.

Now come the plaintiffs, Wallace McGrath, Edward Ryan, and
Matthew Spellacy, by Gilchrist & De Bruler, their attorneys, and
comes the Henderson Bridge Company, by S. B. Vance and W. J.
Woods, their attorneys; also come the defendants, Daniel T. Hartnett, Thomas Hartnett, Henry Wasson, and John Robinson,
232 by D. B. Kumler, their attorney, and, the issues being joined,
this cause is submitted for trial to the jury, viz., William A.

Waters, John A. Smith, Washington W. Cullop, George D. Abraham, W. W. Kendall, Isaac M. Gladdish, Jackson Martin, George W. Fuller, Squire Admire, Moses Reedy, James Willis, and William Becker, twelve good and lawful men, duly and legally selected, empannelled, and sworn, according to law, to well and truly try the issues formed between the plaintiffs and defendant, The Henderson Bridge Company, and a true verdict render, and
233 who, having heard the evidence, the argument of counsel, and received the instructions of court, retire to consider their verdict in charge of a proper officer of this court; and thereupon the jury returns into court their verdict, which is in the words and figures following, to wit:

"We, the jury, find for the plaintiff-, and assess the damage at thirteen thousand four hundred and seventy dollars, $13,470.
JOHN A. SMITH, *Foreman.*"

And thereupon the plaintiffs move the court for judgment
234 on the verdict so rendered; which motion is granted.

Whereupon the defendant, by counsel, moves the court for a new trial; which motion is by the court now here overruled; to which ruling of the court the defendant excepts and prays its writ of error to the Supreme Court of the United States, which is granted, and the bond fixed for a supersedeas in the sum of twenty thousand dollars. It is therefore considered that the plaintiffs, Wallace McGrath, Edward Ryan, and Matthew Spellacy, recover of and from the defendant, The Henderson Bridge Company, the sum of
235 thirteen thousand four hundred and seventy ($13,470.00) dollars, together with their costs in this behalf expended.

And it is further considered by agreement of all the parties hereto made in open court that any money tha*y* may be paid on the foregoing judgment by the defendant, The Henderson Bridge Company, shall be paid to the attorneys for the plaintiff-, Alex. Gilchrist and Curran A. De Bruler, or either of them, and to no one else, for the use and benefit of the plaintiffs and defendants, Daniel T. Hartnett, Thomas Hartnett, Henry Wasson, and John Robinson.

236 And it is further considered that the said Gilchrist and De Bruler or either of them shall have the sole and only right to collect, receive, and receipt for said judgment and any money paid thereon, and the sole and only right to satisfy said judgment of record and to assign the same.

To the foregoing judgment the defendant, The Henderson Bridge Company, excepts and here now informs the court that it will prosecute a writ of error therefrom to the Supreme Court of the United States, and time is given *is given* the defendant until August
237 1st, 1886, in which to file its bill of exceptions.

And afterwards, to wit, on Monday, May 3d, A. D. 1886, the following further proceedings in said cause were had, to wit:

WALLACE MCGRATH *et als.*
v. } No. 364.
THE HENDERSON BRIDGE COMPANY.

Transfer.

Comes this day the defendant herein and files its bond on writ of error to the Supreme Court of the United States in the words 238 and figures following, to wit, in the penal sum of twenty thousand dollars:

In the Circuit Court of the United States, District of Indiana.

WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

Know all men by these presents that we, The Henderson Bridge Company of Louisville, Kentucky, and Lee Howell, W. J. Wood, and William Rahm, Jr., of Evansville, Indiana, are held and firmly bound unto Wallace McGrath, Matthew Spellacy, and Edward Ryan in the sum of twenty thousand dollars, to be paid to the said 239 Wallace McGrath, Matthew Spellacy, and Edward Ryan, their executors or administrators; to which payment, well and truly to be made, we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by these presents.

Sealed with our seals. Dated this 27th day of April, 1886.

Whereas the above-named The Henderson Bridge Company hath prosecuted a writ of error to the Supreme Court of the United States to reverse the judgment rendered in the above-entitled action by the circuit court of the United States for the district 240 of Indiana, at Evansville:

Now, therefore, the condition of this obligation is such that if the above-named The Henderson Bridge Company shall prosecute its said writ of error to effect and answer all costs and damages if it shall fail to make good its plea, then this obligation shall be void; otherwise to remain in full force and virtue.

THE HENDERSON BRIDGE COMPANY,
By M. H. SMITH, *President.* [SEAL.]
LEE HOWELL. [SEAL.]
W. J. WOOD. [SEAL.]
WM. RAHM, JR. [SEAL.]

Examined & approved.
April 29th, 1886.

N. C. BUTLER, *Clerk,*
By J. W. WARTMAN, *Deputy.*

Approved May 3d, 1886.

W. A. WOODS,
U. S. Judge.

241 And said bond, being examined and inspected by the court, is now here approved and ordered filed.

And afterwards, to wit, on Saturday, July 17th, 1886, the following further proceedings in said cause were had, to wit:

WALLACE McGRATH *et als.*
vs.
THE HENDERSON BRIDGE COMPANY.

Comes now the defendant, by Mess. Vance & Wood, its attorneys, and files its bill of exceptions numbers one (1) and two (2)
242 in the words and figures following, to wit:

The defendant, by its attorneys, tendered its bill of exceptions No. 1, which is signed and sealed by the court and ordered to — entered of record, which is as follows:

Bill of Exceptions No. 1.

WALLACE McGRATH, MATTHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

Be it remembered that upon the trial of this case before the court and jury there was exhibited in evidence to the jury the profile of the railroad of the defendant, The Henderson Bridge Com-
243 pany, exhibited at the letting of its said road, and being the same filed as an exhibit in the answer of defendant.

It was explained in evidence to the jury that the subdivisions on said profile are by stations and sections, the distance between stations being 100 feet and the length of the sections being one mile; that the whole length of the said road, from its intersection with the Southeast and St. Louis railway near Evansville to the bridge of defendant across the Ohio river at Henderson, Kentucky, is about nine and one-third miles; that about three miles next to the bridge is trestled; that the contract of plaintiffs em-
244 braced the remaining six and one-third miles, thence towards the city of Evansville, and that the portion of their work from and including section three to the trestle is through the bottoms of the Ohio river, which is subject to overflow.

The bids of plaintiffs were read in evidence, being in writing and addressed to F. W. Vaughn, chief engineer of defendant, in which they propose to make all excavations at the price of 18 cents per cubic yard, embankment on sections 1 & 2 at 12 cents per cubic yard, on sections 3 at 13 cents, on sections 4 & 5 at 14½ cents, on section six at 16 cents, and on section 7 at 18 cents per cubic
245 yard, and to construct the piling for trestles at 30 cents per lineal foot.

Plaintiffs read in evidence the letter of F. W. Vaughn, chief engineer of defendant, accepting their bid, of date July 8, 1884, and the specifications therein referred to, which are as follows:

LOUISVILLE, KY., *July 8th*, 1884.

Messrs. McGrath, Spellacy & Ryan.

GENTLEMEN: Your proposition of third instant to do the graduation, masonry, and trestling of the Henderson Bridge railroad from station zero to station three hundred and thirty-three (333), in accordance with our specifications, is accepted. This comprises
246 all the work of the above character from sections one (1) to six (6), inclusive, and a portion of section seven (7).

It is understood that piles used are to be round, with bark taken off, stringers solid, fourteen (14) by sixteen (16) inches, placed either six (6) or seven (7) feet apart between centres, as I may hereafter elect. In the former case cross-ties are to be eight (8) by eight (8) inches, ten (10) feet long; in the latter six (6) by eight (8) inches, nine (9) feet long; otherwise construction is to be as per standard plan.

It is also understood that should it be deemed desirable the amount of trestling on these sections shown on profile ex-
247 hibited at letting may be reduced without affecting prices named. I am unexpectedly called from the city this evening and will not be able to prepare contract for signature before leaving; will have it drawn up in the course of a week and sent you for signature. In meantime you can proceed with the work the same as if contract had been duly executed.

Yours truly, F. W. VAUGHN,
Chief Eng'r.

OFFICE OF THE HENDERSON BRIDGE CO.,
LOUISVILLE, KY.

248 *Specifications for the Graduation, Masonry, and Trestling of the Henderson Bridge Railroad.*

Graduation—General.—Under this head will be included all excavations and embankments required for the formations of the road-bed, cutting all ditches and drains about or contiguous to the road, changes of channels of streams, excavation of the foundation pits for masonry, the excavation and embankment necessary for the reconstructing of turnpikes or common roads, in cases where they are interfered with in the formation of the railroad, and all other excavations and embankments connected with or incident to the construction of the said railroad.

249 *Clearing and Grubbing.*

Clearing.—The lands of the company shall be cleared for the necessary distance each side of centre line, to the extent required by the engineer, of all trees, bushes, logs, and other perishable material, which shall be destroyed or deposited in heaps, as the engineer may direct. Large trees must be cut not more than two and one-half feet from the ground.

Grubbing.—All stumps, roots, logs, and other obstructions shall be removed to a depth of two feet below subgrade line under em-

bankments and slopes and in excavations and out of the
250 way of ditches, and in such other places as the engineer may
direct.

Fences, buildings, timber, and wood on the line of the road are the property of the railroad. They shall be cleared off by the contractor, piled up, and preserved for the use of the railroad without charge.

All refuse limbs or timber must be burned. The contract price for excavation and embankment must cover clearing and grubbing as well as all the items under that head. Contractors must bear this in mind.

Excavations.

251 Width and slope.—The road will be graded for a single
track. The road-bed shall be of such width as the engineer
may direct—about twenty-one feet in earth cuts.

The slopes shall be of such inclination as the engineer may designate.

Side ditches.—Side ditches in excavations must be parallel to the centre line and shaped in accordance with the standard cross-sections or such other sections as the engineer may direct.

At the lower end of excavations side ditches must diverge sufficiently to avoid washing of the embankments.

252 Standard side ditches will be made along all embank-
ments of one foot or less in height.

Surface ditches.—Surface ditches will be made on the upper side of excavations, of such size and in such location as may be determined by the engineer.

Classification.—Excavations will be classified under the head of earth.

Earth.—Earth will include loam, clay, sand, gravel, marl, decomposed rock and slate, stones and boulders containing less than one cubic yard, and all other material not unquestionably rock.

Road and channel changes.—In road alterations or changes
253 of water-courses, if the average distance hauled exceeds five
hundred feet, the contractor will be entitled to an additional
compensation of one cent per cubic yard per hundred feet for such
excess. No haul shall be paid on excavation, except as specified
above.

Prices for excavation.—The contract prices for excavation will include all bottoming, ditching, road crossing, alterations of roads and water channels; also construction of temporary roads. They will also apply to pits required for foundations.

Embankments.

Width and slopes.—The embankments will be fifteen feet
254 wide on the top, with slopes generally of one and one-half
horizontal to one vertical, unless otherwise determined by the
engineer.

Manner of building, shrinkage, & etc.—Each embankment shal be built according to instructions from the engineer or in layers o such thickness as he may require, with scrapers. Such additional height above grade shall be given to embankments as the engineer may deem necessary to compensate for shrinkage and washing, without additional allowance.

255 Embankments about culverts and masonry of all kinds shall be built at such time, in such manner, and of such material as the engineer may direct.

The embankment generally is to be formed by borrowing equally from each side, in which case the crest of the borrow-pit slopes shall not approach nearer than eight feet to the foot of the embankment slopes, allowing fifteen feet additional on one side for a second track.

The borrow pits shall be located by the engineer, and whenever practicable must be taken out in regular form, the side next to embankment in all cases to be sloped one and one-half horizontal to one vertical.

256 New channels for water-courses shall be excavated at such distance from the foot of the slope as the engineer may direct.

Care must be taken to exclude mud, muck, frozen earth, and all perishable materials from embankments.

Measurement.—All earth-work will be measured in accordance with actual sections of finished roadway and adjuncts, and separate prices for excavation and embankment must be named.

Masonry.

257 Rubble.—Rubble masonry shall be built of large, flat, bedded, sound stone, free of clay, of approved quality, and laid flush in good, fresh-mixed cement mortar. The masonry must be well bonded, built straight, plumb, level, and broken-jointed. No spalls will be allowed in the beds. All faces above ground must be neatly pointed with cement and the masonry capped with selected stones, as directed.

Box culverts.—Dry box-culvert masonry will be made of good square-shaped stone, of size and quality approved by the engineer, and laid in a manner satisfactory to him.

258 For four feet from the ends the stones to be laid in good cement mortar.

Box-culvert masonry laid in mortar shall be built of good selected building stone of good quality and laid flush in good cement mortar to the satisfaction of the engineer.

The covering stones for all box culverts to be of approved thickness and to rest on the walls not less than eighteen inches.

259 Concrete.—Concrete must be composed of four measures of hard durable stone, of quality approved by the engineer, broken in pieces of uniform size, not over two (2) inches in any direction, free from clay and well screened, two measures of clean, sharp sand and one measure of best quality of hydraulic cement, all well mixed with clean water and well rammed in place in layers, as directed by the engineer.

Drain pipe.—Drain pipes may be used in localities where a culvert not over two feet in diameter is required to be furnished by the bridge company.

The pipes must be laid on a solid foundation, carefully shaped to fit the pipe.

260 The joints must be completely filled with hydraulic cement mortar.

The ends of the pipe culverts must be carefully set in a wall of brick or stone of such shape and size as may be determined by the engineer; the pipe must be protected by a covering of earth not less than two feet in thickness. The end walls, if of stone, will be paid for by the cubic yard; if of brick, by the thousand, under the proper classification for masonry.

The bedding will be paid for as concrete.

Slope walls.—Slope walls will be of such thickness and slope
261 as may be determined by the engineer; the stones must
reach entirely through the wall; they must not be less than
four inches thick and twelve inches long; they must be laid dry, with broken joints; joints to be close and free from spalls; the foundation must be prepared as directed by the engineer.

Paving.—Stone paving will be made by setting stone on edge from eight to fifteen inches in depth, breaking joints, as directed by the engineer.

Mortar.—Cement mortar in all classes of masonry must be
262 made of one measure of good hydraulic cement and two
measures of clean, sharp sand, or such other proportion as
may be prescribed by the engineer, well mixed together with clean water, in clean mortar beds constructed of boards, and must be used immediately after being mixed.

All classes of masonry laid in cement must be neatly pointed with cement mortar finely tempered.

The foundation courses for all classes of masonry must be of large
selected stones. No masonry of any kind will be covered up
263 before being accepted by the engineer. Stone masonry will
be built according to the plans and instructions furnished
by the engineer, and will be estimated and paid for by the cubic yard, computing the actual solidity thereof. No constructive or conventional measurement will be allowed, any rule or custom in the section of the country through which the road passes to the contrary notwithstanding.

Pile Trestle.

264 This will be built in accordance with standard plan.

Piles.—All piles must be of young, sound, and thrifty
white or post oak or other timber equally good for the purpose, acceptable to the engineer; they must be at least ten (10) inches in diameter at the small end and at the large end where sawed off of sufficient diameter to afford a full bearing to the cap and not exceeding sixteen inches; they must be straight, trimmed close, and have
the bark taken off before being driven. The piles must be
265 driven until they do not move more than three-quarters of
an inch under the blow of a hammer weighing two thou-

sand (2,000) pounds falling twenty-five feet, and must penetrate at least thirteen feet below surface of ground.

They must be driven at the regular distances apart from centers,
transversely and longitudinally, as required by plans, the piles of
each bent being in a true vertical plane at right angles to line
of roadway. They must be properly pointed and, if
266 required, be shod with iron shoes of approved size and form,
which will be paid for at same price with other iron used in
trestle. If necessary the piles must be capped with suitable iron rings
to prevent splitting.

All piles injured in driving or driven out of place or line shall be replaced without additional charge.

Piles will be paid for by the lineal foot, counting only the actual number of feet left in the structure after completion.

Hewed piles.—If piles with sap hewed off for full length
267 are used, the foregoing specifications apply, excepting the
size at butt shall not exceed fourteen inches; the score hacks
should point toward the small end.

Creosoted piles.—Creosoted piles will be governed by same specifications as untreated piles; they must be thoroughly — through their entire length and in such a manner as to secure an impregnation sufficient to absorb a minimum of one and a half gallons of liquid to the cubic foot.

268 Timber.—The timber may be of white oak, long-leaved yellow pine, or both, or a portion may be creosoted, as hereafter designated; it must be sawed true and out of wind, free from shakes, loose or rotten knots, sap, or any other defect which would impair its strength or durability.

Creosoted timber.—If creosoted timber is used the same requirements as to impregnation will obtain as in case of piles.

Iron.—Iron of the various classes must be of good and acceptable quality.

Workmanship.—All framing must be done in a thorough
269 and workmanlike manner; no open joints or shims will be
allowed; the bearings of caps and stringers must all be sized
and perfect bearings secured throughout.

Measurement.—All timber in trestles will be paid for by the thousand feet, board measure, counting that actually left in the structure after completion.

Contingencies.—The contractor must furnish all materials and
labor incidental to or in any way connected with the manufacture,
transportation, erection, and maintenance of the structures, which
must be kept in thorough repair and adjustment until the
270 final acceptance of entire work under contract.

General conditions applicable to all work.—No material must be used before it has been inspected and received by the engineer, who will submit it to such tests as he may desire. All rejected material must be taken away from side of work without delay.

All work not acceptable to the engineer must be taken down and rebuilt on his order at the contractor's cost.

Commodious passing places for public and private roads
271 shall be made and kept in good condition by the contractor,
and he shall provide and maintain good and sufficient fences
for keeping up enclosures and the preservation of crops.

The contractor will be held responsible for trespass or damage to the adjacent properties or for any acts or omissions on part of himself or employees.

Any parties, under the direction of the engineer, shall be permitted to pass over any part of the work and to haul over the same
any material required for the road, such persons not
272 interfering with the work of the contractor. Right of
way and necessary lands for borrow pits, channels, ditches,
roads, etc., will be provided by the bridge company as early as practicable, but the bridge company is not to be held responsible for any delay caused by legal proceeding beyond its control.

Contractors must preserve bench marks and stakes. In case of neglect they will be charged accordingly.

The prices bid must cover the cost of ditching, draining,
273 watching, and all other items of expense in any way connected
with the execution and maintenance of the work until it is
formally accepted and received as completed.

The contractors take all risks from accidents, floods, and casualties of all kinds which may occur during the progress of the work, and shall make no charge for detention from such causes, but may be entitled, on account of such casualties, to a reasonable extension of time for the completion of the work.

The quantities marked on profile are approximate and
274 not binding. The relative amounts of trestle and earth
work may be changed at option of the engineer without
prejudice.

Contractors must satisfy themselves of the nature of the soil; of the general forms of the surface of the ground; of the quantities of material required for forming the embankments or other work, and of all matters which can in any way influence their contract, and no information on any such matters derived from the
275 maps, plans, profiles, drawings, or specifications or from
the engineer or assistants will in any way relieve the contractor from any risks or from fulfilling all the specifications and conditions of this contract.

The engineer shall have power to direct the application of force to any portion of the work which in his judgment requires it, and to order the increase or diminution of force at any point he may indicate.

Any omission to disapprove imperfect or defective material or
work badly done at time of last monthly estimate shall not
276 be construed as an acceptance of it.

All material used in construction of the Henderson Bridge railroad must be to the satisfaction of the engineer, and all the work is to be done in a thorough and workmanlike manner and subject to the constant supervision and inspection of the engineer or his assistants, and the decision of the engineer is to be final and conclusive.

The word engineer as used in these specifications refers to the chief engineer or his authorized assistants.

277 *Form of Proposal.*

Proposals will be received for the work in the following manner, prices being named separately for each section:

Graduation.

Excavation, per cubic yard, ——.
Embankment, per cubic yard, ——.

Masonry.

Box-culvert masonry in cement, per cubic yard, ——.
Paving, per cubic yard, ——.
Brick-work, per thousand, ——.

Pile Trestling.

Sawed timber.—First. With all untreated timber stringers 14″ x 16″ in single-panel lengths, per thousand feet, B. M., ——.

278 Sawed timber.—Second. With all untreated timber stringers long-leaved yellow pine, two panel-lengths, packed with iron rings, two pieces 8″ x 16″, per thousand feet, B. M., ——.

Sawed timber.—Third. With piles, caps, and cross-section braces of creosoted timber, balance of untreated timber, with yellow pine packed stringers in two-panel lengths, two pieces 18″ x 16″ for sections 8, 9, and 10, ——.

Piles.—Untreated piles, per lineal foot, with bark taken off, ——.
Untreated piles, per lineal foot, with sap hewed off, ——.
Creosoted piles, per lineal foot, ——.
279 Iron-work.—Cast iron, per pound, ——.
Wrought iron, per pound, ——.

Terms of Payment.

Estimates will be made by the engineer at the end of each month of the quantity, character, and value of the work done during the month or since the last estimate, and eighty-five (85) per cent. of same will be paid on or before the fifteenth day of the succeeding month. The fifteen per cent. retained will not be paid until all the work included in the contract has been completed.

280 The estimates, monthly and final, made by the engineer of the Henderson Bridge Company, as to quantity, character, and value of the work done, shall be conclusive and final, except for error founded in mistake or fraud.

Time of Completion.

The trestling, graduation, and masonry from station 0 to station three hundred and thirty-three must be completed by November first, 1884, and the entire work not later than December fifteenth, 1884.

Louisville, Ky., June 20th, 1884.

F. W. VAUGHN,
Chief Engineer.

281 The evidence showed that in the construction of their said road and bridge F. W. Vaughn was the chief engineer of the defendant; that O. F. Nichols was the engineer next in rank, who had his office at Henderson, Kentucky, and that H. P. Hurlbut was engineer next in rank, and had immediate charge and supervision of the work contracted for by the plaintiffs; that in the latter part of August, 1884, the plaintiffs were notified that the trestling 282 in their work shown on the profile would be omitted and a continuous embankment required.

This notice was by letter from O. F. Nichols, engineer, of date August 26th, 1884, which was read in evidence, and is as follows:

HENDERSON, Ky., *August 26th*, 1884.

Mess. McGrath, Spellacy, & Ryan, Evansville, Ind.

GENTLEMEN: As directed by the chief engineer, Mr. F. W. Vaughn I hereby notify you that the trestle shown north of station three thirty-three (333) on profile of the Henderson Bridge rail-283 road will be omitted. The corresponding space will be filled by solid embankment. Arrangements have been completed for additional borrow pits necessary to complete these embankments.

Yours truly, O. F. NICHOLS, *Res. Eng'r.*

The evidence showed that on the day after the receipt of this letter H. P. Hurlbut, engineer, notified the plaintiffs that they would be required to make a continuous ditch on the easterly side of 284 the embankment from section three to section seven, inclusive, for the purpose of draining the borrow pits, such ditch to be two feet wide at bottom on section 3, three feet at bottom on section 4, four feet on section 5, five feet on section 6, and six feet wide at bottom on section 7, the said ditch to run through the borrow pits and to have a slope of one & a half to one.

A witness for plaintiff, named Guthrie, testified that he was clerk for the plaintiffs while they were doing the work mentioned in this suit; that Hurlbut was the engineer in charge of this work 285 and had his office at Henderson, Kentucky. Mr. Nichols was never about the work much. About April 1st, 1885, plaintiffs received from Nichols a telegram as follows:

HENDERSON, KY., *April 2d*, 1885.

To McGrath, Spellacy & Ryan, contractors Henderson Bridge R. R.,
Evansville, Ind.:

Can give quantities for subcontractors any time to-morrow. Can you send down for them?

O. F. NICHOLS, *R. E.*

Spellacy, Ryan, and himself went to Henderson the next day.
Nichols told Seymour, who was in the office, to give us the
286 quantities, and went out of the office. Seymour read the
quantities from an ordinary cross-section book, such as engineers use in their work, and witness wrote them down. Seymour was acting as engineer, and, as witness understood, in Hurlburt's place. He gave the following as the quantities of the continuous ditch :

Section 3	5,235	cubic yards.
" 4	6,635	" "
" 5	9,916	" "
" 6	13,975	" "

and the following as the quantities of the road embankment for the same sections:

287	Section 3	28,689	cubic yards.
	" 4	67,908	" "
	Section 5	75,271	" "
	" 6	79,824	" "
	" 7	36,990	" "

Witness did not remember anything Seymour said except that he told witness to take down the figures as he read them.

At this point the defendant, in pursuance of notice by plaintiff, produced in court the book from which the witness Guthrie obtained the foregoing estimates of ditch and embankment, and said book was put in evidence. Said book was entitled on the back and
inside "Final Estimate," and the figures therein contained
288 are the same certified to by the witness.

Wallace McGrath, one of the plaintiffs, testified that he was a civil engineer and had been employed on various public works. When the work was let to plaintiffs the profile showed a number of trestles of various lengths in the roadway. About the 26th day of August, 1884, plaintiffs were notified by letter from Mr. Nichols *this* this trestling would be omitted. Said letter is the same heretofore copied.

Mr. Hurlbut had charge of the work as resident engineer
289 of defendant. He was at plaintiffs' office the day after the
letter of Mr. Nichols was received, and asked witness in presence of one of his partners if they had received the letter of Mr. Nichols, and said it would be necessary for us to make a continuous ditch from section 3, on the easterly side of the road, so as to drain the borrow pits. I said we could not do that without compensation. He said we would be paid for that at the same price we had bid for
excavation, and that it would be estimated from the top of
290 the ground down. Witness said that to make the borrow
pits serve for a ditch it was necessary to haul the earth from the high ground, where the embankment was low, to the low grounds, where the embankment was high, whereas but for the ditch the earth for embankment would have been taken directly

from the sides; that this in many places necessitated a longer haul of the earth, and increased the cost of the embankment. The ditch was located by Mr. Hurlburt or his assistants, and the work 291 was done under his direction. In reply to our request that the ditch be included in the monthly estimates Mr. Hurlburt said he was instructed by the chief engineer not to return it until the final estimate. I was not here when the work was done. I demanded a final, formal estimate about the time I got back, in April, but did not get one. It was refused by Mr. Vaughn, because, as he said, we were not entitled to compensation for making borrow pits in shape to carry off water. I told him that Mr. Hurlburt 292 agreed to pay for it. He said that Mr. Hurlbut exceeded his authority, and that he would not allow it. This was in Louisville. I do not recollect seeing Mr. Vaughan on the work but twice.

On cross-examination said witness stated: The said ditch from section 3 to section 7 includes in part the borrow pits. If we had taken the earth for the embankment equally from both sides and if the borrow pits had been made in regular shape, as the specifications required, I do not know how much it would have cost to have 293 converted the borrow pits into a ditch or drain. Mr. Vaughan was in constant communication with Mr. Hurlburt, and directed him. Instructions from the chief engineer about matters of this sort usually came through his assistants.

Mr. Vaughn frequently communicated directly with witness. Witness had several interviews with Mr. Vaughan after the 26th August, 1884, and during the progress of the work; on one occasion came with him in his private car from Louisville to Henderson; had no conversation with him concerning this ditch; considered 294 it all right, as Hurlburt represented to us at the time that he had authority from the chief engineer to make this arrangement. Such authority as this did not belong to Mr. Hurlburt by virtue of his office. I supposed he had authority from the chief engineer for what he did.

Matthew Spellacy, one of the plaintiffs, testified that he was on the work the whole time it was going on. Mr. Hurlburt was the engineer who directed the work. After we had started the work we were satisfied that the trestles shown on the profile were to be taken out 295 and a continuous embankment made. Hurlburt said a continuous ditch would have to be made from section 3 to section 7, and that we would be allowed for this ditch as excavation, estimated from the surface down, for the full size of the required ditch. I asked him several times to give us an estimate on the ditch in the monthly estimates. He said he was not allowed to return it until it was completed, and that it would be returned in the final estimate. After the work was completed we received a telegram from Mr. Nichols, 296 at Henderson, the name mentioned by Mr. Guthrie, saying he was ready to give us the quantities for our subcontractors, and the next day Guthrie, Ryan, and myself went to Henderson. We found Seymour and Nichols in the office and told Mr. Nichols that we had come for the figures, and he told Seymour to give them to us.

Seymour read the figures off and Guthrie set them down. The figures were read from the book that Henderson used—
297 an ordinary cross-section books. Mr. Nichols did not say anything about the ditch when he ordered Seymour to give us the figures. The figures Seymour gave us on embankment and ditch are those claimed in this action.

I do not think I ever said anything to Mr. Vaughan as to this agreement about the ditch until after this suit was brought. I then told him Mr. Hurlburt had agreed that we should have pay for this ditch, but he said he would not allow it.

Edward Ryan, one of the plaintiffs, testified as follows:

298 "I was present when Mr. Hurlburt notified us that we would have to make a continuous ditch. He said we would get excavation prices for it; that Mr. Vaughan always told him he could not give this ditch until it was a ditch, and that at the final estimate it would be returned in full; there was no ditch returned in the monthly estimates. We asked him for it from time to time, but he always said he could not give it until the final estimate; that these were his instructions from Mr. Vaughan.

"I went to Henderson with Spellacy and Guthrie after the
299 receipt of the telegram from Mr. Nichols that he was ready to give us the figures for our subcontractors. We found Nichols and Seymour in the office Hurlburt had occupied. Nichols told Seymour to give us the figures on the final estimate for our work. Seymour said he would read them and Guthrie could put them down, which was done. So far as excavation and embankment are concerned, these are the figures that we claim in this action. They were given as a final estimate to enable us to
300 settle with our subcontractors. The work from sections 3 to 7 was all let by us to subcontractors."

On cross-examination this witness said:

"I think the ditch consists mainly of borrow pits for this reason: On the low ground, where the embankment was high, the borrow pits would have to be very deep; on that part of the work the ditch was all borrow pits; but on the high ground, where the embankment was low, it was necessary to excavate deeper than was necessary for the borrow pits, and the dirt thus excavated had to be
301 hauled long distances to put on the embankment in the low grounds.

W. H. H. Wasson, a witness for plaintiffs, testified that he was a "public works and railroad contractor" and had a contract under plaintiffs for section 4 of the Henderson Bridge railroad; commenced grading on the 4th of August, 1884; before the order to omit the trestles had made from twelve to thirteen thousand yards of embankment; thinks he had between eight and nine hundred feet up to grade; had taken earth from borrow pits about twenty

inches deep, and afterwards had to dig to depth of nine feet
302 to make the ditch, and was required to haul this extra excavation, some of it, six hundred feet. Hurlburt said to me, "Wasson, you get pay for the excavation and can afford to haul it." Early in November Mr. Hurlburt was along making the estimate for October, and I asked him to return the excavation. He said that we would get it in the final estimate. He afterwards gave me my quantities for embankment, 31,926 cubic yards, and ditch excavation, 3,423 cubic yards. My understanding was that I was
303 to be paid for a ditch estimate from the surface, two feet wide at bottom and sloping one & a half to one.

On cross-examination witness said he did not know how much excavation was made for the ditch extra of what would have been necessary for the borrow pits.

Robinson, a witness for plaintiffs, testified "that if the work was changed so as to require a continuous ditch it could not be done as cheaply as it could if done as provided for in the specifications, because where the embankment would be low you would have to make a shallow borrow pit, and in making a continuous
304 ditch you would have to deepen that borrow pit to bring it to the ditch level and would have to carry the dirt forward, necessitating a haul. There was no continuous ditch contemplated in the profile of the work."

Philip Fisher, a witness for plaintiffs, testified that he was a civil engineer of thirty-five years' experience and largely as railroad engineer. If the specifications provided that the earth for embankment should be borrowed equally from both sides and then
305 a continuous ditch should be required to be made on one side of the embankment it would necessitate a greater haul and would be more expensive. In consequence of the ditch a greater amount of earth would have to be taken from the side on which the ditch is made.

One cannot work to such advantage in a narrow ditch as in a broad borrow pit. The deeper you go the harder the earth is to work.

On cross-examination the witness said that if, in addition to the borrow pits, there were only five thousand cubic yards of
306 earth taken out to make the ditch it would not be any more expensive to excavate this ditch along the whole line than it would have been to excavate the ditches indicated on the profile.

Evidence of Defendants.

The defendant read to the jury in evidence the deposition of O. F. Nichols, who testified—

That during the construction of the railroad and bridge of defendants F. W. Vaughan was its chief engineer. Witness was resident engineer, next in rank, and as such had charge of its
307 work at Henderson, Kentucky, and between Henderson and Evansville, Indiana. P. P. Hurlburt was engineer next in rank and had immediate charge of the construction of the railroad

from Evansville to the trestle, being the work embraced in the contract of plaintiffs. Mr. Vaughan, when not present at the work, was in daily communication with me and Mr. Hurlburt by letter or telegraph, and in this way managed and controlled the whole work.

In the summer of 1884 I was directed by Mr. Vaughan, in
308 connection with J. J. Putnam & Mr. Hurlburt, to examine
and report upon the feasibility of omitting from the work of plaintiffs the trestling shown on the profile at time of the letting.

I reported the result of the examination to him by letter, of date August 11th, 1884, which is as follows:

HENDERSON, KY., *Aug.* 11*th*, 1884.

F. W. Vaughan, Esq., chief engineer.

DEAR SIR: I wired you this evening as follows: "We met Col.
Maddox and Sir Ch-les yesterday and examined the sites" of
309 proposed tressle in bank below Evansville. The owners
are generally determined on a bank without openings and will make us concessions on this condition, and will protest if we do not acceed-. We agree that a close bank should be used with drain pipe at few places only, and that the borrow pits on east side should form a drainage ditch from station one hundred twenty seven to end of embankment, providing for carrying water off within these limits. The bayou bank and bank above will require purchase of land or material.

310 I think Judge Vance should secure purchase of this and
priviledge of extension of borrow pits where necessary below before matters have gone much farther. The head of water above the bank would insure rapid flow through the openings with collection of drift in heavy masses. The obstruction of solid bank would doubtless increase head against bank, pile the water up a foot or more, and give some current along the face of bank, analogous to the action at present, when water is high along the bank
311 near the bayou, where the drift does not collect rapidly and
where the destruction is not serious by such action. The drainage ditch could have a fall of nearly two feet to the mile and would take the place of the three county ditches within the limits named.

Drain pipes might be used wherever the depth of depression would do away with excavation below original surface of valley. It was thought that the pipes might prove a nuisance by creating a current through bottom of bank and thus collecting drift
312 at surface of water near the bank. I have asked Mr. Put-
nam to write you on the subject of our trip along the line.

Yours respectfully, O. F. NICHOLS,
Res'd't Eng'r.

He replied to this letter by telegram, of date August 16, 1884, which is as follows:

LOUISVILLE, KY., *Aug. 16th*, 1884.

O. F. Nichols, resident eng'r, Henderson, Ky.:

Your report of eleventh inst. concerning closing of opening north
long tressle rec'd. The making of this portion of the line
313 solid embankment was form*all*y my intention, and the opening- shown at time of letting were only made upon the representations of Hurlburt that both you and him after examination considered them necessary. I understand that since our recent conference and a more careful consideration of the matter you deem advisable to make bank solid with drain pipes at points mentioned in your report. These should be as few as possible in number. This plan I approve, as also the system of borrow-pit drainage.
Notify McGrath, Spellacy & Ryan that all tressle on portion
314 of line embraced in their contract will be dispensed with.
Putnam's conclusions coincide with ours, except he recommends a tressle at the large slough at upper end of line, which I threw out at time of letting. I cannot agree with him; make the best of this solid bank business in your dealings with proper owners. Judge Vance might be able to get a release from all claims of damage from overflow in consideration of this change. We might get
a low rate for extra earth in consideration of same. I have
315 wired Judge Vance to visit you at Henderson relative to this
matter, and if anything can be done hold notice to contractors until result has been obtained.

F. W. VAUGHAN,
Chief Eng'r.

In conformity with *with* the instructions in that telegram, I notified the contractors by letter, of date August 26th, 1884, that the trestles shown north of station 333 on profile of the Henderson Bridge railroad would be omitted.

The plan of drainage suggested in my letter to Mr. Vaughn
316 was accepted by him, and Mr. Hurlburt was directed to have
it carried out.

The drainage channel consists mainly of the borrow pits as excavated in the construction of the embankment. Such additional excavation was made as would suffice to connect these borrow pits. In a few instances the borrow pits were deepened for a narrower width where the pits had not originally been excavated to sufficient depth.

When Messrs. Spellacy and Ryan came to Henderson for the
quantities, in response to my telegram of April 2d, 1885, they
317 said they understood that they would be allowed for a continuous ditch over the whole line of the eastern side of the bank through the submerged country, exactly as though the ditch had been made before the borrow pits had been made. I reminded them that the borrow pits were to form part of the ditch, and that the actual work done by them in excess of this would be the most that could be entertained or allowed. I instructed Mr. Seymour not
to give them any quantities for the ditch other than that em-
318 braced in connecting the borrow pits. I never gave them the

quantities for the continuous ditch, nor did I ever direct Mr. Seymour or any one else to give them the quantities indicated, and they were never given to them with my knowledge or consent.

P. P. Hurlburt, a witness for plaintiff, testified that he was resident engineer of defendant, Henderson Bridge Company, and as such had charge of the work in the contract of plaintiffs. His first conversation with any of the plaintiffs about this continuous
319 ditch was with Mr. McGrath. He asked if they would be
paid for it. I told him I supposed it would be paid for, but it would be in the province of the chief engineer to say. I may not have used those words, but that was the purport of it. I had a good many conversations with them in regard to this matter, and I always left it as a matter of doubt as to whether or not they would be paid for it, but that the ditch must be cut there. No part of that ditch was included in *in* the monthly estimates. I told them
320 it was not a ditch until it was cut all the way through. I
never said anything to McGrath, Spellacy, or Ryan as to Mr. Vaughan's having instructed me on that subject. I never told either of them that the reason for not including the ditch in the monthly estimates was that Mr. Vaughan had instructed me not to do so.

I had no authority in regard to prices further than the contract. I never informed them that I had any authority to change
321 any prices or to make any contract with them. I told them
that it was doubtful whether the chief engineer would allow them for the ditch. I never made any estimate on the work done by them for the purpose of making the ditch. In some places there is a ditch separate from the borrow pits.

Generally it runs through the borrow pits which forms the ditch through the low grounds, in almost all cases, and through the hills in some places. The quantities for the ditch given to them from book were not an estimate of what excavation plaintiffs had
322 done to make a ditch, but were the estimated contents of a
continuous ditch, just as if the ground had not been broken through the bottoms from one end to the other of the proposed ditch, and they include such portions of the borrow pits as are in the ditch.

Witness said he had never spoken to Mr. Vaughan, the chief engineer, about any statement he had made to plaintiffs with reference to payment for this continuous ditch until after he had left defendant's service, after the 10th day of March, 1885. Witness
323 said he did not recollect giving Wassen the quantities of his
excavation as claimed by him, though he might have done it. The quantity as noted by him in his book is 3,420 yards. The estimate is calculated on a ditch from the north end of his work for a mile to the south end, and includes the borrow pit.

The ditch on his work as estimated has never been excavated. There was no difference in the position or in the shape of the borrow pits, only that they borrowed more out of the hills. The borrow pits were duly without reference to the ditch
324 line. In all the low places the borrow pits are very much
wider and deeper than the ditch was required to be. As a

rule, the borrow pits covered the whole of the right of way that was available. The position was nearly the same on both sides; if there was any difference at all it was probably merely accidental. Making the ditch would increase the cost of the embankment where they had to carry the earth. The cost would be affected only as to that portion of the ditch that had to be dug below the borrow pit.
325 There were places where it was rather an advantage to them to take the dirt from the high places and use it in the low places. If there were five thousands yards taken out below the borrow-pit line to make the ditch in addition to what had been taken for the purpose of making the embankment the cost would be increased only to the extent of this five thousand yards.

Witness said the contents of the book from which the quantities were taken by the witness Guthrie, and which book, entitled "Final Estimate," had been put in evidence, were not final
326 estimates, but only the quantities furnished by him to the chief engineer, from which a final estimate could be made. Witness never made an estimate, monthly or final, and had no authority to do so. He only furnished the quantities to the chief engineer, who made the estimate of quantities and prices or values.

In reply to questions by the court the witness testified:

My eidea was that the company needed this ditch for drainage, and for that reason it ought to pay for it. The chief engi-
327 neer thought differently. I made the estimate on the theory they would pay for it. I did not go upon two theories—one of a continuous ditch and the other the actual excavations. I know well that the plaintiffs expected to be paid for the work in the way I made the estimate. During all the time they asked me to put the ditch in the monthly estimate, and I refused to put it in anything but the final estimates.

And in reply to a question *for* counsel for defendant the witness testified:

I told the plaintiffs all the time that the question of pay-
328 ing for the ditch would be determined by the chief engineer.

F. W. Vaughan, a witness for defendant, testified that he was chief engineer of the Bridge road, and exercised such supervision as ordinarily belongs to a chief engineer; had total charge of the work, through his assistants, and exercised a constant supervision over it. Nichols was first assistant and Hurlburt was properly in charge of the construction; supposes he was at the work two-thirds of the time while it was actually going on; was at Henderson the greater part of the year 1884, and saw Mr. Hurl-
329 burt almost every day while there; when not at Henderson was at Louisville or some convenient point, and kept up daily communication, by wire or otherwise, from the time the work was let, in July, 1884, until the 1st of June, 1885. I never gave Mr. Hurlburt any authority to make any agreement with plaintiffs for compensation for the ditch in question in this case, and never heard of the question being raised until they called for their final estimate. I first heard of this claim on the 12th day — April, 1885. I had met Mr. McGrath three or four times and Mr.

330 Ryan once or twice. The mont-ly estimates provide- for in the specifications were made out in our office at Louisville. Mr. Hurlburt took notes each month and returned an account of the work, and on these accounts the monthly estimates were made of the quantities and prices. Mr. Hurlburt had no authority to make a final estimate. Under our organization his position was that of assistant engineer, but with regard to railroad organization he was resident engineer. It was his duty to stake out the 331 work and overlook the construction and return to me estimates of the work actually done. He had no authority by virtue of his position to make or change contracts.

On cross-examination witness stated that while said work was going on he lived at Louisville; a portion of the time in Henderson, Kentucky; saw Mr. Hurlburt frequently; was over the whole line of work in September and December, 1884; went to Florida about the first of January, 1885, and returned about the first of April. Mr. Nichols was in charge of the work during my abscence. I was in Florida 332 on account of my health, but still performed my duties and kept an office in Florida. Mr. Hurlburt had charge of the construction of the work in plaintiffs' contract and was one of my authorized assistants. As far as his duties extended he was a competent man. My communications with plaintiffs were generally through Mr. Nichols, he being the superior of Mr. Hurlburt, though in a great many matters I communicated with Mr. Hurlburt direct.

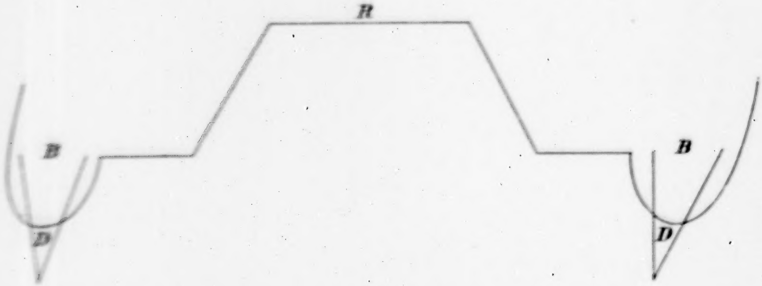
On re-examination witness said: The authority of Nichols 333 and Hurlburt was not increased by my absence. It is not customary for the chief engineer to be on the work constantly. I think I attended to my business properly from first to last. None of my powers or authority were remitted to Hurlburt or Nichols.

G. Boscarron, a witness for defendant, testified that he had been a civil engineer for twenty years and had been employed on various railroads, and is at present consulting engineer of the 334 Cincinnati Southern railroad. He examined the ditch in controversy in this su-t in January, '86. That ditch consists of small excavations, varying width, and connecting the borrow pits. From the appearance of things the ditch seems to have been dug after the borrow pits were made. The borrow pits were cut down deeper than the ditch, as was shown by the water standing in the borrow pits. The ditch only existed occasionally. Of course, wherever there was a ditch it was dug down deep, and where 335 there was no ditch the borrow pit was deeper down than the ditch level.

In answer to the following question, viz., "What does this provision in the specifications mean—all earthwork will be measured in accordance with actual sections of finished roadway and adjuncts," witness said: That means that the embankment was to be measured from actual cross-sections as built, and that the ditch was to be measured from the actual cross-sections as made. Adjuncts mean ditches, drainage ditch, changing the channel of water-

336 courses, road and farm crossings; in other words, all other graduation that is to be done besides the roadway.

Witness made and exhibited to the jury a diagram of a cross-section of the work of plaintiffs where the ditch was deeper than the borrow pits, which is here given—



337 and explained that R represented the road-bed, B the borrow pits, and D the ditch extending below the borrow pits, and said that under the above provision of the specifications only so much of the ditch as was not contained in the borrow pits could be measured.

If in digging the ditch in the borrow pits the contractor used the earth excavated extra of the borrow pits in making the embankment the cost of building the embankment would be increased by the extra haul on that amount of material, provided they 338 hauled it. Where the borrow pit was down to or below the ditch line there would not be any increased cost, because there would not be any ditch.

From my observation my impression was that the borrow pits on the west side were larger than those on the east side of the embankment.

J. W. Putnam, a witness for defendant, testified as follows:

I am a civil engineer and have been connected with the 339 construction of railroads, &c. I built the three miles of trestle between the embankment made by plaintiffs and defendant's bridge; have been over the line since the work of plaintiffs was completed, but have not examined that ditch particularly. The ditch proper consists of small ditches dug at the bottom of the borrow pits, simply excavations made at the bottom of the borrow pits. The cost of making the embankment need not necessarily have been any more by reason of the fact that this ditch was re-340 quired to be made on the easterly side of the road, in the borrow pits. The cost of the ditch would have been the cost of draining out and connecting the borrow pits. If the engineer had required the excavation of the borrow pits to be larger, or anything of that kind, it would have increased the cost, but such was not the case. The borrow pits on the west side were larger than those

on the east side. Mr. Vaughan was at Henderson a considerable part of the time. I saw him in relation to my work. I do not know that it made any difference where he was. There was
341 communication by telegraph all the time.

C. O. Bradford, a witness for defendant, testified that he was a civil engineer and connected with the Henderson Bridge Co. I have made a cross-section of the borrow pits and the ditch made by the plaintiffs on the easterly side of defendant's road and of the qual-ity of excavation made to make the ditch extra the borrow pits. That quantity is five thousand eight hundred and ninety cubic yards. In this estimate is included three hundred and seventy-five
342 cubic yards, the quantity of earth taken out in connecting the borrow pits. The quantity of earth taken out by Mr. Wasson for the purpose of making a ditch was five hundred and ninety cubic yards.

This estimat- was made last December.

Digby Seymour, a witness for defendant, testified as follows:

I am a civil engineer and was connected with the building of the Henderson Bridge railway, and gave the plaintiffs the quantities of excavation for the ditch in controversy in this suit. I found
343 the figures in the note book kept by Mr. Hurlburt, which was noted as a final-estimate book. I do not remember any conversation with Spellacy and Ryan when these figures were given. My conversation was almost entirely with Mr. Guthrie. I told him that in giving these figures I acted entirely upon the instructions of Mr. Nichols, resident engineer, and that he had authorized me to give the figures on one condition—that they were not to be considered as a final estimate; that they had not yet passed through
344 the chief engineer's hands, and until they did they could not be considered as such. I told him that those figures were not to be regarded as an estimate, but merely figures to be submitted for an estimate.

On cross-examination said witness stated that he knew of the telegram being sent to the plaintiffs to come and get the figures; was not present when Spellacy and Ryan talked with Nichols in Hurlburt's office; was not present when they asked for the figures.

Patrick Guthrie, a witness for plaintiffs, being recalled,
345 testified that he had no recollection that Seymour when he gave him the figures said that they were not to be taken as a final estimate.

Edward Ryan, recalled by plaintiffs, said Hurlburt never told him that the ditch would not be estimated at all unless Mr. Vaughan approved it. Mr. Nichols did not at any time say that this ditch would not be paid for unless Mr. Vaughan approved it. *Mr. Nichols did not at any time say that this ditch would not be paid for unless Mr. Vaughan approved it.* At the time the figures were given
346 Mr. Nichols did not refer us to Mr. Vaughan for an allowance for what was in the ditch. I remained there while Mr.

Guthrie took the figures; all of us went in there together. Mr. Seymour did not say to Mr. Guthrie that those figures would not be a final estimate until Mr. Vaughan approved of them.

And upon the foregoing evidence the court gave to the jury the following instructions (8a):

(8a). The taking out of the trestles and the requirement of
347 earth-work in their place created no basis for a claim for
extra compensation; so that, for the purpose of the question,
we are now coming to the case in the same as though the specifica-
tions and profile in the first instance had shown continuous embank-
ment. The bridge company, having come to the conclusion to make
this embankment, deemed it proper to make a change in the re-
quirements in respect to ditches, but there is no reservation in the
contract in regard to that. Of course, the general terms of the contract
in respect to the right of the engineer to oversee the work
348 may embrace the power to direct reasonable changes in regard
to ditches, but there is nothing authorizing the bridge com-
pany to substitute a continuous ditch for the ditches defined upon
the original profile; so when they determined to require this con-
tinuous ditch to be made it necessarily put the parties into a posi-
tion for negotiation on the subject, and Mr. Hurlburt, the engineer
in charge, being authorized to have this ditch constructed, had inci-
dental authority to agree upon the price or mode of measure-
ment.

349 The defendant at the time excepted and still excepts to so
much of the said instruction and charge as is contained in
the following words, viz:

But there is nothing authorizing the bridge company to substitute
a continuous ditch for the ditches defined upon the original profile;
so when they determined to require this continuous ditch to be made
it necessarily put the parties into a position for negotiation on the
subject, and Mr. Hurlburt, the engineer in charge, being au-
350 thorized to have this ditch constructed, had incidental authority
to agree upon the price or mode of measurement.

And the court also gave the jury the following instructions, viz:

(8d.) But when it was proposed to make a continuous ditch on the east side of the track at the same time the embankment was being made that introduced a new element into the problem.

If the parties were to make an embankment and ditch also
351 it became desirable to take the dirt for the embankment from
such localities as would be most effective in producing the
ditch, and it necessarily resulted from this state of things that a party
making embankment would or might at least make embankment
and ditch at the same time. He might be taking earth out for the
purpose of making embankment which he could have taken from
another place more economically if he was not intending to make
this ditch. It follows that earth taken from the same place
352 may represent embankment and also ditch. The excavation
made might be borrow pit and it might be ditch, and conse-
quently it became proper for the parties concerned to adopt some sys-

tem by which they would compute the respective amounts to be credited to each phase of the work. The same work being effective, both towards making the embankment and making the ditch, to treat it as all embankment or as all ditch would be unjust.

So it was for the parties, the bridge company and plaintiffs,
353 to agree upon some plan upon which they could make a computation; and so I instruct you upon the facts as they appear without dispute that it was within the power of Mr. Hurlburt, the resident engineer, who was superintending the construction of the work, to make a contract with the plaintiffs, who were under contract to make the embankment for the making of this ditch, to agree that they should do this work, and how much of the excavation should be deemed to be for the purpose of embankment and
354 how much for the ditch.

And the defendant excepted at the time and still excepts to so much of the said instruction as is in the words following, viz:
"And so I instruct you upon the facts as they appear without dispute that it was within the power of Mr. Hurlburt, the resident engineer, who was superintending the construction of the work, to make a contract with the plaintiffs, who were under contract to make the embankment for the making of this ditch, to agree
355 that they should do this work, and how much of the excavation should be deemed to be for the purpose of embankment and how much for the ditch."

The court also gave to the jury the following instructions, viz:

8e. "From the duty imposed upon him as resident engineer of the defendants arose Mr. Hurlburt's power to make an adjustment of the question. Plaintiffs claim he did make arrangements with them by which it was agreed that the portion of excavation
356 to be regarded as *as* such should be considered as starting from the lower level of the ditch along its whole length and be measured at a certain slope to the surface of the earth as it was before work was commenced, and upon that they claim 37,256 cubic yards of excavation as ditch. Defendants claim that Hurlburt did not make any such agreement, and this is an issue of fact which the jury must determine upon the evidence.

"I will say, however, that under the circumstances Mr. Hurl-
357 burt did have power to make the agreement if he saw fit so to do. If you find that he did so and that the measurements he returned are correct, then the plaintiffs are entitled to compensation accordingly for 37,256 cubic yards at 18 cts. per cubic yard."

And to the giving of said instruction the defendant at the time excepted and still excepts.

The court also gave to the jury the following instruction:

8f. "If Mr. Hurlburt did not make such agreement with these parties, but simply told them what mode of measurement he
358 thought would be adopted, but that it would have to be left to the chief engineer in the end, it would follow that the work was done without any special agreement, and you will be compelled to estimate it upon its fair and reasonable worth. You will, then, consider from the proof how much excavation was made for the

ditch and how much more to make the embankment than if the continuous ditch had not been required, and for the number of yards of earth excavated in consequence allow 18 cents per cubic yard.

359 "In this view the figures of Mr. Hurlburt, though relevant, would not be conclusive as evidence. If he made the agreement, as the plaintiffs claim he did, and his estimates were correct, that is an end of the question. If he did not make the agreement and the question was left open, then you must determine the number of yards excavated for the ditch upon the proof and allow accordingly the contract price of 18 cents a yard."

And the defendant at the time excepted and still excepts to so much of the said instruction as is in the following words, 360 viz.:

"If he made the agreement, as the plaintiffs claim he did, then that is an end of the question."

At the conclusion of the evidence, and before the argument of counsel began, and before the court gave its charge and instructions to the jury, the defendant requested the court, in writing, to give to the jury the following instruction, viz.:

(3.) As to the ditch claimed by plaintiffs to have been made by them on the easterly side of the railroad of defendant, the 361 plaintiffs are entitled to recover only for so much excavation as was actually done for the purpose of making such ditch, excluding any portion of the borrow pits dug exclusively for the purpose of making the embankments, and that the jury can find for plaintiffs only the contract price of eighteen cents per cubic yard for the excavation, which they may find from the evidence was so made for the purpose of making such ditch."

But the court refused to give said instruction; whereto the 362 defendant at the time excepted and still excepts.

Wherefore the defendant prays that this its bill of exceptions No. 1 be signed, sealed, and enrolled and made part of the record, which is done this the 9th day of April, 1886.

WM. A. WOODS, *Judge.*

363 *Bill of Exceptions No. 2.*

WALLACE McGRATH, MATTHEW SPELLACY, EDWARD RYAN

vs.

THE HENDERSON BRIDGE COMPANY.

Be it remembered that on the trial of this cause before the court and jury the plaintiffs offered in evidence and exhibited to the jury the profile of the road of the defendant bridge company and read to the jury the bid of the plaintiffs, the letter of F. W. Vaughan, chief engineer of defendant, of date July 8, 1884, and the 364 specifications therein referred to, all which are set forth in defendant's bill of exceptions No. 1, and are referred to as part hereof.

Wallace McGrath, one of the plaintiffs, testified—

That in the profile exhibited at the letting timber trestle-work is shown in the roadway. We did none of this work. We made a number of trestle approaches on one side of the tract at public road crossings and for farm crossings. The trestling in the roadway shown on the profile was dispensed with by direction of the
365 defendant and a continuous embankment required to be made. I was not here when the trestle approaches were made.

Matthew Spellacy, one of the plaintiffs, testified as follows:

On the profile on which we bid certain trestling in the roadway was provided for. We did not do any of that trestling, as it was replaced by solid embankment. We made some trestle approaches for road and farm crossings. These were not on the profile, and could not be made for the same price as the trestles shown
366 in the profile because of the small quantity of piling at each place and the necessity for frequent removals and setting of the pile-driver. The timber-work was as cheap, but driving the piles was not. Mr. Hurlburt ordered these approaches to be made. He said he would be paid for them. I told him it could not be done for the prices bid for the trestling in the roadway. He said he did not know anything about it, but that we would have to do it.
367 The price allowed for piling was thirty cents a foot. It would be worth double that to put piling in bridge crossings as we had to do it. The item in estimate for February, 1885—Secs. 3, 4, 5, 6, 7. Piles driven, 2,103 lin. ft., 30c. lin. ft. $630.90—is for piling driven at these crossings.

Edward Ryan, one of the plaintiffs, testified as follows:

Those bridges for road crossings were put in by me. I have
368 not had much experience in that class of work; do not recollect how many crossings we made. It was very difficult to do this work. Every time we drove a pile we would have to raise the driver to drive the next one. We had to put up false work, which was as much trouble as to do the permanent work. There were from four to ten and sixteen piles at a place, and the pile-driver had to be carried from place to place through the mud. I would not make this piling again for less than one dollar & 50 cents
369 per foot. We had no contract for this work, and before we began it I had a conversation with Mr. Hurlburt about it. I wanted to know what we would be paid for it, and he said that Mr. Vaughan would do what was right. I said I supposed we would have to go to work and do it in order to get a final estimate. He said, Yes; it will pay you to do it on that account if you do not get anything for it.

370 Horace Conkly, a witness for plaintiffs, testified "that he was a railroad contractor and had seen the bridges made by plaintiffs on defendant's road for road and farm crossings. It would cost double or more to drive the piling for these crossings than it would to drive the piling for the trestles in the roadway as indicated

on the profile on account of the extra moves and the small- of piling
at each place. It would be worth sixty cents per foot if paid
371 for what was ordered; but if paid only for the timber actu-
ally put in the structure it would be worth seventy-five cents
per foot."

Philip Fisher, a witness for plaintiff- and a civil engineer, testified
that it would be worth four times as much per foot to drive the pil-
ing for the road and farm crossings then that in the roadway as
originally intended.

P. P. Hurlburt, a witness for defendant, testified he was
372 resident engineer of defendant in charge of the work in plain-
tiffs' contract. The piling driven by plaintiffs amounted to
—— and was all for road and farm crossings.

Witness was shown an estimate of plaintiffs' work for the month
of February, 1885, receipted by plaintiffs, and containing the follow-
ing item—"Secs. 3, 4, 5, 6, 7. Piles driven, 2,103 lin. feet, 30c. lin. foot,
$630.90"—and stated that said item was part of the piling
373 contained in the road crossings and all driven by plaintiffs to
that date. I supposed these crossings were made under the
contract. I made no agreement whatever with the plaintiffs about
them.

On cross-examination he said: Plaintiffs never claimed that these
crossings were not in there contract, and never refused to do it for
the contract price. I never made any agreement to pay them more
than the contract price, and never told Ryan that they should
374 be paid what it was worth. Ryan said it could not be done
for the contract price, and I thought so myself. I had no
authority to change prices or to make any contracts with plaintiffs
except as specially authorized by Mr. Vaughan, the chief engineer.

F. W. Vaughan, a witness for defendant and its chief engineer,
testified—

That no agreement was made with plaintiffs by him or by his
authority as to any price for making the trestle road and
375 farm crossings, except their original contract for the work,
and that until April, 1885, after the work was done, he sup-
posed it was done under the contract and for the contract price for
piling, and had no notice that they had asked anything more till
then.

Upon the foregoing evidence the court gave the jury the following
instructions:

376 "6." The next item is the piles in the bridges. The con-
tract price for piles is thirty cents per lineal foot. The pro-
file and specifications, as originally drawn or as they now stand,
show considerable trestle-work, and show generally highway cross-
ings across the track at different places, but there is no statement in
the specifications or in the profile with respect to what kind of
377 crossing it shall be, whether of earth or of timber. There is
a dispute between the parties arising out of this fact upon the
question whether these bridges made for the purpose of carrying

highways over the embankment are within the contract. The contract in that respect is ambiguous.

The court, looking at the contract, cannot say what kind of crossing
was intended. There is no proof of custom in this case
378 sufficient to settle this point. We are therefore left to the
construction which the contractors themselves have adopted,
as shown by their conduct under the contract.

When parties have made an ambiguous contract and have acted under it, and their joint actions show their understanding of it, courts and juries will follow the construction thus indicated.

"6a." In this case the evidence shows that in respect to
379 2,100 feet, in round numbers, the plaintiffs themselves treated
the piles as coming within the terms of the contract in respect
to price by receipting for that price upon the estimates.

6b. There has been some evidence before the jury—I cannot rehearse
it—as to what was said between the engineer of defendant
and plaintiffs at the time this work was done. Perhaps the plaintiffs
made some protest against doing this work at the price
380 stated, but, nevertheless, they went on and did the work
under that price and receipted for it, and I think the jury
should accept that as conclusive upon that point. A subordinate
engineer, working in behalf of a corporation as Mr. Hurlburt was,
has no right to waive the effect of receiving pay upon monthly estimates
under a contract like this. Such a contract would have
381 but little force or value if a subordinate agent has the power
to waive the terms, and this contract declares the estimates
made by the engineer and furnished to the parties to be final, except
for fraud or mistake.

6c. If the defendant had been an individual instead of a corporation
he could have been there in person and waived the contract by
saying we will leave that open; we will not make that conclusive;
382 but I instruct *I in* you that this subordinate agent,
Mr. Hurlburt, working for the bridge company, a corporation
whose affairs must have been conducted by agents appointed
to act for it, Mr. Hurlburt acting in this capacity, could not waive
this stipulation in the contract, that the monthly and final estimates
should be conclusive.

Therefore, in respect to the piling included in the estimate,
383 about 2,100 lineal feet, plaintiffs have precluded themselves
from claiming extra pay.

7. In respect to the work on the embankment the act of accepting
pay at the contract price raises a presumption that that was the
proper price for the whole amount, and in the absence of proof to
the contrary the contract price should govern; but the presumption
384 is not conclusive as to the 700 feet of piling not in
the estimates, and if you find upon the proof that there was
an agreement between plaintiffs and Mr. Hurlburt that these piles
should be paid for at what they were reasonably worth and not by
the contract price you may allow the reasonable value as shown by
the proof on the subject.

The defendant at the time excepted and still excepts to so
285 much of the said last instruction as is contained in the following words, viz:
"But the presumption is not conclusive as to the 700 feet of piling
not in the estimates, and if you find upon the proof that there was
an agreement between plaintiffs and Mr. Hurlburt that these piles
should be paid for at what they were reasonably worth and
286 not by the contract price you may allow the reasonable value
as shown by the proof on the subject."

Before the argument of counsel to the jury began and before the
court instructed the jury the defendant in writing requested the
court to give the jury the following instructions, viz:
"Where any of the work done by plaintiffs and sued for in their
complaint has been included in any of the monthly estimates of
such work read to them, and such work is therein valued at
287 the contract price, such fact is conclusive evidence that such
work was done under the contract and the prices there fixed
are final and conclusive."

But the court refused to give said instruction; to which ruling of
the court the defendant at time excepted and still excepts; and the
defendant here now asks that this its bill of exceptions be
288 signed, sealed, enrolled, and made part of the record, which
is done this the 9th day of April, 1886.

WM. A. WOODS, *Judge.*

289 UNITED STATES OF AMERICA, } ss:
District of Indiana, City of Evansville, }

I, Noble C. Butler, clerk of the circuit court of the United States
for the district of Indiana, do hereby certify that the above and foregoing is a full, true, and complete copy of all the proceedings had
in said court at Evansville, in said district, in the cause of Wallace
McGrath *et als.* vs. The Henderson Bridge Company, No. 364, as fully
as the same appears of record and remains on file in my office.

Witness my hand and the seal of said court, at Evansville, in said
district, this 23d day of August, A. D. 1886.

[Seal of the United States Circuit Court, Dis. of Ind.]

NOBLE C. BUTLER, *Clerk.*

290 *Assignment of Errors.*

Supreme Court of the United States, of December Term, in the year
one thousand eight hundred & eighty-six.

THE HENDERSON BRIDGE COMPANY

vs.

WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN.

In error.

Afterwards, to wit, on the first Monday of December, in this same
term, before the justices of the Supreme Court of the United States,

at the Capitol, in the city of Washington, comes the said Henderson Bridge Company, by J. M. Shackelford, S. B. Vance, and W. J. Wood, its attorneys, and says that in the record and proceedings aforesaid there is manifest error in this, to wit:

(1.) That the court erred in refusing to charge the jury as requested by it, as set forth in its bill of exceptions.

(2.) That the court erred in those parts of the charge as given 391 which were excepted to by it, as set forth in its bills of exceptions; and the said Henderson Bridge Company prays that the judgment aforesaid may be reversed, annulled, and altogether held for nothing, and that it may be restored to all things which it hath lost by occasion of said judgment.

JAS. M. SHACKELFORD,
S. B. VANCE,
W. J. WOOD,
Attorneys for Plaintiff in Error.

392 UNITED STATES OF AMERICA, *ss:*

The President of the United States of America to the judges of the circuit court of the United States for the seventh judicial circuit and district of Indiana, Greeting:

Because in the record and proceedings, as also in the rendition of a judgment in a plea which is in the said circuit court, before you, between Wallace McGrath, Matthew Spellacy, and Edward Ryan and The Henderson Bridge Company, a manifest error hath happened, to the great damage of the said The Henderson Bridge Company, as by their complaint appears, and it being fit that the error, if any there hath been, should be duly corrected and full and 393 speedy justice done to the parties aforesaid in this behalf, you are hereby commanded, if judgment be therein given, that then, under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the Supreme Court of the United States, together with this writ, so that you have the same at Washington on the first Monday of December next, in the said Supreme Court to be then and there held, that, the record and proceedings aforesaid being inspected, the said Supreme Court may cause further to be done therein to correct that error what of right and according to the law and custom of the United States should be done.

Witness the Honorable Morrison R. Waite, Chief Justice of 394 the Supreme Court of the United States, and the seal of said circuit court.

Done at Evansville this 29th day of April, A. D. 1886.

[Seal of the United States Circuit Court, Dist. of Ind.]

N. C. BUTLER, *Clerk.*

295 *Citation.*

United States of America to Wallace McGrath, Matthew Spellacy, and Edward Ryan, Greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States to be holden at Washington on the first Monday in December next, pursuant to a writ of error filed in the clerk's office of the circuit court of the United States for the district of Indiana, wherein The Henderson Bridge Company is plaintiff and you are defendants in error, to show cause, if any there be, why the judgment in the said writ of error mentioned should not be corrected and speedy justice should not be done the parties in that behalf.

296 Witness the Honorable William A. Woods, one of the judges of said circuit court, this 3d day of May, A. D. 1886.

WILLIAM A. WOODS, *Judge.*

Came to hand May 5th, 1886.

I have served this summons on the within-named McGrath, Spellacy, & Ryan by reading and leaving a copy with Gilchrist and De Bruler, attorneys for said parties, at Evansville, Ind., May 5.

EDWARD HAWKINS,
U. S. Marshal,
By T. J. GROVES, *Deputy.*

Cost:

Summons	6 00
Copy	30
Mileage	06
Return	10
	6 46

297 [Endorsed:] McGrath, Spellacy & Ryan *vs.* Henderson Bridge Co. Citation. See return inside.

298 In the Circuit Court of the United States, District of Indiana.

WALLACE MCGRATH, MATTHEW SPELLACY, EDWARD RYAN
vs.
THE HENDERSON BRIDGE COMPANY.

Know all men by these presents that we, The Henderson Bridge Company of Louisville, Kentucky, and Lee Howell, W. J. Wood, and Wm. Rahm, Jr., of Evansville, Indiana, are held and firmly bound unto Wallace McGrath, Matthew Spellacy, and Edward Ryan in the sum of twenty thousand dollars, to be paid to the said Wallace McGrath, Matthew Spellacy, and Edward Ryan, their executors or administrators; to which payment, well and truly to 299 be made, we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by these presents.

Sealed with our seals. Dated this 27th day of April, 1886.

Whereas the above-named The Henderson Bridge Company hath prosecuted a writ of error to the Supreme Court of the United States to reverse the judgment rendered in the above-entitled action by the circuit court of the United States for the district of Indiana, at Evansville:

Now, therefore, the condition of this obligation is such that if the above-named The Henderson Bridge Company shall pros-
400 ecute its said writ of error to effect and answer all costs and damages if it shall fail to make good its plea, then this obligation shall be void; otherwise to remain in full force and virtue.

THE HENDERSON BRIDGE COMPANY,
By M. H. SMITH, *President*. [SEAL.]
LEE HOWELL. [SEAL.]
W. J. WOOD. [SEAL.]
WM. RAHM, JR. [SEAL.]

Examined & approved.
April 29th, A. D. 1886.

N. C. BUTLER, *Clerk*,
By J. W. WARTMANN, *Deputy*.

Approved May 3, 1886.

W. A. WOODS,
U. S. Judge.

DISTRICT OF INDIANA:

A true copy.
Attest:

[Seal of the United States Circuit Court, Dist. of Ind.]

N. C. BUTLER, *Clerk*.

401 [Endorsed:] Wallace McGrath *et als. v.* The Henderson Bridge Company. Copy of bond on appeal.

(Here follows profile marked page 402.)

Endorsed on cover: Indiana C. C. U. S. No. 326. The Henderson Bridge Company, plaintiff in error, *vs.* Wallace McGrath, Matthew Spellacy, and Edward Ryan. Filed August 26, 1886.

Sealed with our seals. Dated this 27th day of April, 1886.

Whereas the above-named The Henderson Bridge Company hath prosecuted a writ of error to the Supreme Court of the United States to reverse the judgment rendered in the above-entitled action by the circuit court of the United States for the district of Indiana, at Evansville:

Now, therefore, the condition of this obligation is such that if the above-named The Henderson Bridge Company shall pros- 400 ecute its said writ of error to effect and answer all costs and damages if it shall fail to make good its plea, then this obligation shall be void; otherwise to remain in full force and virtue.

THE HENDERSON BRIDGE COMPANY,
By M. H. SMITH, *President*. [SEAL.]
LEE HOWELL. [SEAL.]
W. J. WOOD. [SEAL.]
WM. RAHM, Jr. [SEAL.]

Examined & approved.
April 29th, A. D. 1886.

N. C. BUTLER, *Clerk*,
By J. W. WARTMANN, *Deputy*.

Approved May 3, 1886.

W. A. WOODS,
U. S. Judge.

DISTRICT OF INDIANA:

A true copy.
Attest:

[Seal of the United States Circuit Court, Dist. of Ind.]

N. C. BUTLER, *Clerk*.

401 [Endorsed:] Wallace McGrath *et als. v.* The Henderson Bridge Company. Copy of bond on appeal.

(Here follows profile marked page 402.)

Endorsed on cover: Indiana C. C. U. S. No. 326. The Henderson Bridge Company, plaintiff in error, *vs.* Wallace McGrath, Matthew Spellacy, and Edward Ryan. Filed August 26, 1886.

[illegible] 26 [illegible]

JAMES H. McKENNEY

Supreme Court of the United States

—OCTOBER TERM, 1888.—

No. 326.

The Henderson Bridge Company,

PLAINTIFF IN ERROR,

vs.

Wallace McGrath, Matthew Spellacy & Edward Ryan

In Error to the Circuit Court of the United States, for the District of Indiana.

BRIEF AND ARGUMENT

FOR PLAINTIFF IN ERROR.

JAMES M. SHACKELFORD,

S. B. VANCE,

ATTORNEYS.

No. 326.

Supreme Court of the United States

The Henderson Bridge Company,
PLAINTIFF IN ERROR,
vs.
Wallace McGrath, Matthew Spellacy & Edmund Ryan

In Error to the Circuit Court of the United States, for the District of Indiana.

BRIEF FOR PLAINTIFF IN ERROR.

This was an action by the defendants against the plaintiff in error, to recover for work and labor done, and material furnished in the construction of its railroad.

The Henderson Bridge Company is a corporation of the State of Kentucky, and in the years 1884 and 1885, under powers conferred by its charter and by statutes of the State of Indiana, constructed a bridge over the Ohio river at the City of Henderson in the State of Kentucky, and also built a railroad from the Indiana terminus of its bridge to a point near the City of Evansville in said State. In the construction of the said road and bridge, F. W. Vaughan was the chief engineer of plaintiff in error. O. F. Nichols was the engineer next in rank, and had his office and residence at Henderson, Kentucky, and H. P. Hurlburt was engineer next in rank, and had immediate supervision in the field of the work on the railroad.

The defendants in error made their bid for the graduation, masonry and trestling for said railroad, which was accepted for part of it, by letter of plaintiff's chief engineer addressed to them, of date of July 8th, 1884. There was never any formal contract between the parties for the doing of this work; but the bid of the defendants, the letter of plaintiff's chief engineer, and the specifications of plaintiff constitute the contract.

A profile of the plaintiff's road, exhibited at the letting, was in evidence and is inserted between pages 90 and 91 of the transcript of this case. On the trial it was explained in evidence to the jury that the subdivisions on said profile are by stations and sections, the distance between stations being 100 feet, and the length of the sections being one mile, that the whole length of the said road, from its intersection with the Southeast and St. Louis railway near Evansville, to the bridge of defendant across the Ohio river at Henderson, Kentucky, is about nine and one third miles; that about three miles next to the bridge is trestled; that the contract of defendants in error embraced the remaining six and one third miles thence toward the City of Evansville, and that the portion of their work, from and including section three, to the trestle, is through the bottoms of the Ohio river, which are subject to overflow."

On the part of the road last mentioned, the profile showed, at intervals, 1486 feet of trestling; but the specifications provided that: "The quantities marked on profile, are approximate and not binding. The relative amounts of trestle and earth work may be changed at option of the engineer, without prejudice." On the 16th day of August, 1884, the plaintiff's chief engineer telegraphed O. F. Nichols, its resident engineer at Henderson: "Notify McGrath, Spellacy and Ryan that all trestle on portion of line embraced in their contract, will be dispensed with." And on the 20th day of August, 1884, the plaintiff's resident engineer wrote them as follows: "As directed by the chief engineer, Mr. F. W. Vaughan, I hereby notify you that the trestle shown north of station three thirty three (333), on profile of the Henderson Bridge railroad, will be omitted. The corresponding space will be filled by solid embankment. Arrangements have been completed for additional borrow pits necessary to complete these embankments."

No objection to that change was made by the contractors, nor was there any question of the right under the contract, to make it.

From the bridge at Henderson, the road ran in a northerly direction. As before stated, the portion of the defendants' work from and including section (3) to the trestle, a distance of four and one third miles, was through the bottoms of the Ohio river, which are subject to overflow." The low character of the ground necessitated a high embankment, as is shown by the quantity of earth it contained, which in the said sections was as follows:

Section 3,—28,689 cubic yards.
" 4,—67,908 " "
" 5,—75,271 " "
" 6,—79,824 " "
" 7,—36,990 " "

The amount for section 7 was for but one-third of the section. The excavations made for procuring the earth for the embankment were termed "borrow pits." The specifications provide that, "the embankment generally is to be formed by borrowing equally from each side." "The borrow pits shall be located by the engineer, and whenever practicable, must be taken out in regular form,—the side next to embankment, in all cases, to be sloped one and one half horizontal to one vertical."

Before the order eliminating the trestle was made, the chief engineer directed O. F. Nichols, with one J. J. Putnam, and his assistant, Hurlburt, to examine and report upon the feasibility of omitting from the work of plaintiffs the trestling shown on the profile at the time of the letting. He reported to the chief engineer the result of the examination, by letter of date August 11th, 1884, in which he says: "We agree that a close bank should be used, and that the borrow pits on east side should form a drainage ditch from station one hundred and twenty-seven (127) to end of embankment, providing for carrying water off within these limits."

To that letter the chief engineer replied by telegram of date August 16th, 1884, in which, after referring to some suggestions in the letter, he says: "This plan I approve, as also the system of borrow pit drainage."

Hurlburt was directed to have the plan of drainage carried out. The evidence showed that on the day after their receipt of the letter from Nichols, notifying them of the elimination of the trestles from their work, Hurlburt notified the contractors that they would be required to make a continuous ditch on the easterly side of the embankment from section three to section seven inclusive, "for the purpose of draining the borrow pits,"—such ditch to be two feet wide at bottom on section 3, three feet at bottom on section 4, four feet on section 5, five feet on section 6 and six feet wide at bottom on section 7; the said ditch to run through the borrow pits, and to have a slope of one and a half to one. The contents of a ditch of the dimensions stated, estimated from the surface, would have been for the several sections as follows:

Section 3.—. 5,235 cubic yards.
" 4.— 6,635 " "
" 5.— 9,916 " "
" 6.—13,975 " "
" 7.— 1,499 " "

The defendants in error claimed that they should be paid for these quantities, amounting to 37,260 cubic yards, at the price of 18 cents per cubic yard, the sum of six thousand six hundred and ninety six and 75-100 dollars; and that was one element of their complaint. They alleged (p. 4,) that "when called on to make such ditch, they declined to do so, for the reason that no provision was made for it in the profile and specifications upon which their bid was based; and for the further reason that the making of the excavations for such ditch would be more expensive per cubic yard than the excavations contemplated in the profile and specifications. Thereupon it was agreed by the defendant, that if plaintiffs would make such ditch they should receive for their work, in so making it, the price at which they had bid for excavations, viz: Eighteen cents per cubic yard for all the earth removed in making such ditch, withont reference to the fact that part of the earth taken from said ditch would be used in the embankment and would also be estimated and be paid for as embankment." And they state that under such agreement, they made such continuous ditch, and that its measurement was as above stated.

The plaintiff in error, (p. 43-44.) denied all these averments. It says (p. 44.) that the only work done by plaintiff at the request of defendant or otherwise, for the purpose of making said pretended ditch, was after the borrow pits were dug for the purpose of making the embankment, to connect said borrow pits by ditches where obstructions to the flow of water existed between them. In doing this, they excavated not more than four thousand cubic yards of earth, for which they were entititled to eighteen cents per cubic yard. Defendant denies that plaintiff refused to do said work for the contract price, or that it agreed to pay them more than the contract price therefor."

The contention was that on account of the alleged ditch the defendants in error were entitled to be paid for only so much excavation as was done by them, extra the "borrow pits," for the purpose of effecting the required drainage. The excavation so made, by the evidence, was only five thousand eight hundred and ninety cubic yards.

The precise question was, whether for excavating 5,890 cubic yards of earth "to drain the borrow pits, the price for which by the original contract was $1,060.20, they should be allowed for an imaginary or estimated ditch containing 37,260 cubic yards, at a price of $6,696.75?

The evidence of defendants tended to show that when Hurlburt notified them that they would be required to make a ditch "for the purpose of draining the borrow pits" they said they "could not do that without compensation." To which he replied that "they would be paid for that at the same price they had bid for excavation, and that it would be estimated from the top of the ground down."

The evidence also showed that Hurlburt had no authority by virtue of his office to make such agreement or promise, and that he was not specially authorized to make it. Wallace McGrath, the one of plaintiffs to whom the said promise was made, testified that "such authority as this did not belong to Mr. Hurlburt by virtue of his office." There is no other evidence, than that statement of Mr. Hurlburt's, of any contract or agreement with the Henderson Bridge Company, for any increased compensation for the excavation done to effect the drainage adopted.

The questions then upon this point were: (1). Whether the work actually done by defendants in error to effect the said drainage, was extra the scope of their original contract (2). Whether the said statement or promise of Hurlburt was intended for a new undertaking by the Bridge Company; and (3) whether Hurlburt, a subordinate engineer, had authority to make such agreement for the Company.

(b) The trestles shown on the profile in that part of the road embraced in the contract of defendants in error, were in the line of the road, and, as has been stated, were wholly eliminated. But they were required to make trestle approaches on one side of the road for some of the road and farm crossings, in which were put 2,800 feet of piling. As the profile did not indicate that these crossings were to be made of piling the defendants in error claim that they were not included in their bid, but were made under a new agreement by which they were to be paid what such trestles were worth; which largely exceeded the prices in the original contract. The contract price for trestles was 30 cents per lineal foot, and the evidence of defendants tended to show that to construct the trestles for these crossings was worth from 60 cents to one dollar and fifty cents per lineal foot.

The plaintiff in error claimed that these trestles for the road crossings were made under the original contract, and the estimate of the defendants' work for the month of February, 1885, receipted by them, contained the following item: "Secs. 3, 4, 5, 6, 7. Piles driven 2,108 lin. feet, 30c. lin. foot, $630.90." That was for part of the piling in controversy, and was all that had been driven by them to that date.

The Court charged that as to the quantity of piling included in that estimate, the defendants in error were bound by the price therein stated, but that as to the remaining 700 feet, the jury were at liberty to allow the value according to the evidence. About the only evidence adduced to prove the new contract alleged was the statement of one of the defendants in error, that before they began the construction of these trestles, "I wanted to know of Hurlburt what we would be paid for it, and he said Mr. Vaughan would do what was right."

The contention of plaintiffs was, denying the alleged new contract, (1). That the defendants were bound by their original contract to make these trestles as required; and (2) that the said estimate was conclusive, not only for the quantity of piling it contained, but also as to the price of the balance of 700 feet not therein contained.

So that the very question here is, whether by virtue of a new agreement with plaintiffs, the defendants were entitled to demand for this 700 feet of piling, one dollar and fifty cents, rather than 30 cents per lineal foot.

II.

ASSIGNMENT OF ERRORS.

The errors assigned by plaintiff are as follows:

1. That the Court erred in refusing to charge the Jury as requested by it, as set forth in its bill of exceptions.

2. That the Court erred in those parts of the charge as given, which were excepted to by it, as set forth in its bill of exceptions. (Printed Trans. p. 88-89).

Upon the issue as to the right of defendants in error to recover upon their claim for the ditch in question, the Court gave to the Jury the following instructions (p. 82 84): "(8a). The taking out of the trestles and the requirement of earth work in their place created no basis for a claim for extra compensation, so that for the purpose of the question we are now coming to, the case is the same as though the specifications and profile in the first instance had shown continuous embankment. The Bridge Company, having come to the conclusion to make this embankment, deemed it proper to make a change in the requirements in respect to ditches, but there is no reservation in the contract in regard to that. Of course the general terms of the contract in respect to the right of the engineer to oversee the work may embrace the power to direct reasonable changes in regard to ditches, but there is nothing authorizing the Bridge Company to substitute a continuous ditch for the ditches defined upon the original profile; so when they determined to require this continuous ditch to be made it necessarily put the parties into a position for negotiation on the subject, and Mr. Hurlburt, the engineer in charge, being authorized to have this ditch constructed, had incidental authority to agree upon the price or mode of measurement."

"The defendant at the time excepted and still excepts to so much of the said instruction and charge as is contained in the following words, viz.:

"But there is nothing authorizing the Bridge Company to substitute a continuous ditch for the ditches defined upon the original profile; so when they determined to require this continuous ditch to be made, it necessarily put the parties into a position for negotiation on the subject, and Mr. Hurlburt, the engineer in charge, being authorized to have this ditch constructed, had incidental authority to agree upon the price or mode of measurement."

And the Court also gave the Jury the following instructions, viz.:

"(8d) But when it was proposed to make a continuous ditch on the east side of the track at the same time the embankment was being made that introduced a new element into the problem."

"If the parties were to make an embankment and ditch also it became desirable to take the dirt for the embankment from such localities as would be most effective in producing the ditch, and it necessarily resulted from this state of things that a party making embankment would or might, at least, make embankment and ditch at the same time. He might be taking earth out for the purpose of making embankment which he could have taken from another place more economically if he was not intending to make this ditch. It follows that earth taken from the same place may represent embankment and also ditch. The excavation made might be borrow pit and it might be ditch, and consequently it became proper for the parties concerned to adopt some system by which they would compute the respective amounts to be credited to each phase of the work. The same work being effective, both towards making the embankment and making the ditch to treat it as all embankment or as all ditch would be unjust."

"So it was for the parties, the bridge company and plaintiffs, to agree upon some plan upon which they could make a computation, and so I instruct you upon the facts as they appear without dispute that it was within the power of Mr. Hurlburt, the resident engineer, who was superintending the construction of the work, to make a contract with the plaintiffs, who were under contract to make the embankment for the making of this ditch, to agree that they should do this work, and how much of the excavation should be deemed to be for the purpose of embankment and how much for the ditch."

"And the defendant excepted at the time and still excepts to so much of the said instruction as is in the words following, viz.:

"And so I instruct you upon the facts as they appear without dispute that it was within the power of Mr. Hurlburt, the resident engineer, who was superintending the construction of the work, to make a contract with the plaintiffs, who were under contract to make the embankment, for the making of this ditch, to agree that they should do this work, and how much of the excavation should be deemed for the purpose of embankment and how much for the ditch."

The Court also gave to the Jury the following instructions, viz.:

(8e) "From the duty imposed upon him as resident engineer of the defendants arose Mr. Hurlburt's power to make an adjustment of the question. Plaintiffs claim he did make arrangements with them by which it was agreed that the portion of excavation to be regarded as such should be considered as starting from the lower level of the ditch along its whole length and be measured at a certain slope to the surface of the earth as it was before work was commenced, and upon that they claim 37,256 cubic yards of excavation as ditch. Defendants claim that Hurlburt did not make any such agreement, and this is an issue of fact which the Jury must determine upon the evidence."

"I will say, however, that under the circumstances Mr. Hurlburt did have power to make the agreement if he saw fit so to do. If you find that he did so and that the measurements he returned are correct, then the plaintiffs are entitled to compensation accordingly for 37,256 cubic yards at 18cts per cubic yard."

"And to the giving of said instruction the defendant at the time excepted and still excepts."

The Court also gave to the Jury the following instruction:

(8f) "If Mr. Hurlburt did not make such agreement with these parties, but simply told them what mode of measurement he thought would be adopted, but that it would have to be left to the chief engineer in the end, it would follow that the work was done without any special agreement and you will be compelled to estimate it upon its fair and reasonable worth. You will then consider from the proof how much excavation was made for the ditch, and how much more to make the embankment than if the continuous ditch had not been required and for the number of yards of earth excavated in consequence allow 18 cents per cubic yard."

"In this view the figures of Mr. Hurlburt, though relevant would not be conclusive as evidence. If he made the agreement, as the plaintiffs claim he did, and his estimates were correct, that is an end of the question. If he did not make the agreement and the question was left open, then you must determine the number of yards excavated for the ditch upon the proof and allow accordingly the contract price of 18 cents a yard."

And the defendants at the time excepted and still excepts to so much of the said instruction as in the following words, viz.:

"If he made the agreement, as the plaintiffs claim he did, then that is an end of the question."

At the conclusion of the evidence, and before the argument of counsel began, and before the Court gave its charge and instructions to the Jury the defendant requested the Court, in writing, to give to the Jury the following instruction, viz.:

"As to the ditch claimed by plaintiffs to have been made by them on the easterly side of the railroad of defendant, the plaintiffs are entitled to recover only for so much excavation as was actually done for the purpose of making such ditch, excluding any portion of the borrow pits dug exclusively for the purpose of making the embankments, and that the Jury can find for plaintiffs only the contract price of eighteen cents per cubic yard for the excavation, which they may find from the evidence was so made for the purpose of making such ditch."

"But the Court refused to give said instruction; whereto the defendant at the time excepted and still excepts."

And as to the claim of defendants in error for a price extra the original contract for the trestles built by them the Court gave to the Jury the following instructions:

"The next item is the piles in the bridges. The contract price for piles is thirty cents per lineal foot. The profile and specifications as originally drawn or as they now stand, show considerable trestle work, and show generally highway crossings across the track at different places, but there is no statement in the specifications or in the profile with respect to what kind of crossing it shall be, whether of earth or of timber. There is a dispute between the parties arising out of this fact upon the question whether these bridges made for the purpose of carrying highways over the embankment are within the contract. The contract in that respect is ambiguous."

"The Court looking at the contract, cannot say what kind of crossing was intended. There is no proof of custom in this case sufficient to settle this point. We are, therefore, left to the construction which the contractors themselves have adopted, as shown by their conduct under the contract."

When parties have made an ambiguous contract and have acted under it, and their joint actions show their understanding of it, courts and juries will follow the construction thus indicated."

(6a) "In this case the evidence shows that in respect to 2,100 feet, in round numbers, the plaintiffs themselves treated the piles as coming within the terms of the contract in respect to price by receipting for that price upon the estimates."

(6b) "There has been some evidence before the Jury —I cannot rehearse it—as to what was said between the engineer of defendant and plaintiffs at the time this work was done. Perhaps the plaintiffs made some protest against doing this work at the price stated, but, nevertheless, they went on and did the work under that price and receipted for it, and I think the Jury should accept that as conclusive upon that point. A subordinate engineer, working in behalf of a corporation as Mr. Hurlburt was, has no right to waive the effect of receiving pay upon monthly estimates under a contract like this. Such a contract would have but little force or value if a subordinate agent has the power to waive the terms, and this contract declares the estimates made by the engineer and furnished to the parties to be final, except for fraud or mistake."

(6c) "If the defendant had been an individual instead of a corporation he could have been there in person and waived the contract by saying we will leave that open; we will not make that conclusive; but I instruct you that this subordinate agent, Mr. Hurlburt, working for the bridge company, a corporation whose affairs must have been conducted by agents appointed to act for it, Mr. Hurlburt, acting in this capacity, could not waive this stipulation in the contract that the monthly and final estimates should be conclusive."

"Therefore, in respect to the piling included in the estimate, about 2,100 lineal feet, plaintiffs have precluded themselves from claiming extra pay."

"In respect to the work on the embankment the act of accepting pay at the contract price raises a presumption that that was the proper price for the whole amount and in the absence of proof to the contrary the contract price should govern; but the presumption is not conclusive as to the 700 feet of piling not in the estimates, and if you find upon the proof that there was an agreement between plaintiffs and Mr. Hurlburt that these piles should be paid for at what they were reasonably worth and not by the contract price, you may allow the reasonable value as shown by the proof on the subject."

"The defendant at the time excepted and still excepts to so much of the said last instruction as is contained in the following words, viz.:

"But the presumption is not conclusive as to the 700 feet of piling not in the estimates, and if you find upon the proof that there was an agreement between plaintiffs and Mr. Hurlburt that these piles should be paid for at what they were reasonably worth and not by the contract price you may allow the reasonable value as shown by the proof on the subject."

Before the argument of counsel to the Jury began, and before the Court instructed the Jury, the defendant in writing requested the Court to give the Jury the following instruction, viz.:

"Where any of the work done by plaintiffs and sued for in their complaint has been included in any of the monthly estimates of such work read to them, and such work is therein valued at the contract price, such fact is conclusive evidence that such work was done under the contract and the prices there fixed are final and conclusive."

"But the Court refused to give said instruction; to which ruling of the Court the defendant at the time excepted."

By reason of those instructions the Jury were authorized to find for the defendants in error for the matter of the alleged ditch, five thousand six hundred and thirty-six dollars and fifty-five cents, and for the matter of the piling, eight hundred and fifty dollars, in excess of any rightful claim they had, and to that extent plaintiffs aver the judgment herein is erroneous.

ARGUMENT.

The gist of the Court's instructions as to the claim of defendants in error for ditching is, (1). That the plan of drainage adopted after the elimination of the trestle work from the road bed was extra the scope of their contract and they were therefore under no obligation to make it. If they should make it, they were not only free to contract for the price, but even without any contract were entitled to demand the reasonable value of the work so done by them regardless of the original contract. (2). And that as Mr. Hurlburt, the division engineer of plaintiffs in immediate charge of the construction of the work, was authorized to have this plan of drainage executed by them, he had incidental authority to agree upon the price or mode of measurement.

We submit that the first proposition is erroneous, and, if not, that the second proposition is a non sequitur, and in either case, erroneous.

(1). It will elucidate the matter to ascertain clearly the change determined upon in the plan of drainage and what was actually done by defendants in executing that plan.

O. F. Nichols, the resident engineer, next in rank to the chief, testified (p. 75): "In the summer of 1884 I was directed by Mr. Vaughan, in connection with J. J. Putnam and Mr. Hurlburt, to examine and report upon the feasibility of omitting from the work of plaintiffs the trestling shown on the profile at the time of the letting. I reported the result of the examination to him by letter of date August 11th, 1884, which was as follows: "We, yesterday, examined the sites of proposed trestle in bank below Evansville. The owners are generally determined on a bank without openings. We agree that a close bank should be used with drain pipe at few places only, and that the *borrow pits on east side should form a drainage ditch* from station one hundred and twenty-seven to end of embankment, providing for carrying water off within those limits.' He replied to this letter by telegram of date August 16, 1884, which is as follows:

"'O. F. Nichols, Resident Engineer:

"Your report of eleventh inst. concerning closing of openings north long trestle received. The making of this portion of the line solid embankment was formerly my intention, and the openings shown at time of letting were only made upon the representations of Hurlburt that both you and he, after examination, considered them necessary. I understand that since our recent conference and a more careful consideration of the matter you deem advisable to make bank solid with drain pipes at points mentioned in your report. These should be as few as possible in number. This plan I approve as also the *system of borrow pit drainage*. Notify McGrath, Speilacy and Ryan that all trestle on portion of line embraced in their contract will be dispensed with.'"

The "profile exhibited at the letting" indicated such ditching as was necessary to lead the water to the trestle openings thereon shown. After it was concluded to eliminate those trestles and to make a solid embankment for the road bed the whole length of plaintiffs work, it then became necessary to provide a way to carry the water to the southerly end of the embankment, in section (7) seven at the terminus of the long trestle which connects the embankment with the bridge. The plan adopted, as shown by the letter and telegram above recited was "that the borrow pits on the east side" of the embankment "should form a drainage ditch from station one hundred and twenty-seven to end of embankment providing for carrying water off within these limits."

The specifications provide that the embankment generally is to be formed by borrowing equally from each side."

"The borrow pits shall be located by the engineer, and wherever practicable must be taken out in regular form, the side next to embankment in all cases to be sloped one and one half horizontal to one vertical."

The slope indicated is the same which it is claimed the ditch in controversy should have. Now it being determined that these borrow pits "should form the drainage ditch," to complete the drainage plan it would be necessary after the embankment was made, only to connect the borrow pits where they were not continuous, and to deepen them where they might not be deep enough.

How little would be necessary for that purpose is manifest from comparing the quantities of the ditch claimed, estimated from the top of the ground, and the quantities of the borrow pits as shown by the earth excavated from them to make the embankment. There were in the embankment along which this drainage was required [illegible] cubic yards of earth taken equally from the borrow pits on each side. The one half of that, taken from the borrow pits on the easterly side, where the drainage was to be, is [illegible] cubic yards, while the contents of the ditch imagined to run through these borrow pits, and estimated from the top of the ground is only [illegible] cubic yards. Thus calling these borrow pits a ditch, whose contents is [illegible] cubic yards, how much would it need to be excavated to make it a ditch whose contents are [illegible] cubic yards? The latter ditch might be narrower and therefore deeper than the former, but there could by no possibility be an excavation for such ditch until its depth exceeded that of the borrow pits. And if the borrow pits were so located by the engineer as to be continuous there would in that case be no other need of additional excavation to make the supposed ditch. There could, therefore, by no possibility, have been any excavation for this alleged ditch, but to deepen or connect the borrow pits.

And that is what the plaintiffs were directed to do, and what was actually done.

Wallace McGrath, one of the plaintiffs, testifies (p. [illegible]) —"Mr. Hurlburt had charge of the work as resident engineer of defendant. He was at plaintiffs office the day after the letter of Mr. Nichols was received, and said it would be necessary for us to make a continuous ditch from Section 3 on the westerly side of the road so as to *drain the borrow pits*. The said ditch from Section 3 to Section 7 includes in part the borrow pits."

Edward Ryan, another of the plaintiffs, testifies (p. [illegible]) —I think the ditch consists mainly of borrow pits, for this reason. On the low ground, where the embankment was high the borrow pits would have to be very deep, so that part of the work the ditch was all borrow pits; but in the high ground, where the embankment was low it was necessary to excavate deeper than was necessary for the borrow pits."

O. F. Nichols, engineer of defendant, says (p. [illegible]): "The drainage channel consists mainly of the borrow pits as excavated in the construction of the embankment. Such additional excavation was made as would suffice to connect these borrow pits. In a few instances the borrow pits were deepened for a narrower width where the pits had not originally been excavated to sufficient depth."

F. P. [illegible], engineer of defendant, in charge of the work in the field, says (p. [illegible]): "I never made any estimate on the work done by them for the purpose of making the ditch. In some places there is a ditch separate from the borrow pits. Generally it runs through the borrow pits which have the ditch through the low ground in almost all cases and through the hills in some places. There was no difference in the position or in the shape of the borrow pits, only that they borrowed more out of the hills. The borrow pits were dug without reference to the ditch line. In all the low places the borrow pits are very much wider and deeper than the ditch was required to be. As a rule the borrow pits covered the whole right of way that is available. The position was nearly the same on both sides, if there was any difference at all, it was probably merely accidental."

G. [illegible], consulting engineer of the Cincinnati Southern Railroad, (p. [illegible]): "He examined the ditch in controversy in this suit in January, [illegible]. That ditch consists of small excavations of varying width, and connecting the borrow pits. From the appearance of things, the ditch seems to have been dug after the borrow pits were made. The borrow pits were cut down deeper than the ditch, as was shown by the water standing in the borrow pits. The ditch only existed occasionally. Of course, wherever there was a ditch it was dug down deep, and where there was no ditch, the borrow pit was deeper than the ditch bed."

J. W. Putnam, a civil engineer, who built the trestle connecting the work of plaintiffs with the bridge, testified (p. 80): "The ditch proper consists of small ditches dug at the bottom of the borrow pits, simply excavations made at the bottom of the borrow pits. The cost of the ditch would have been the cost of draining out and connecting the borrow pits."

C. O. Bradford, a civil engineer, testified (p. 81): "I have made a cross-section of the borrow pits and the ditch made by the plaintiffs on the easterly side of defendant's road and of the quantity of excavation made to make the ditch, extra the borrow pits. That quantity is five thousand eight hundred and ninety cubic yards. In this estimate is included three hundred and seventy-five cubic yards, the quantity of earth taken out in connecting the borrow pits."

There is no material difference among the witnesses as to what was done. As expressed in figures by the last witness, for the purpose of connecting and deepening the borrow pits along four and one-third miles of embankment, the plaintiffs excavated 5,890 cubic yards of earth—they ask pay for an imaginary ditch containing 37,780 cubic yards.

The "profile exhibited at the letting" shows in these same sections of plaintiffs work, excavation in the form of ditching to the amount of 4,660 cubic yards. By the change this kind of work was increased 1,230 cubic yards.

Upon the facts, the question arises whether under their contract the plaintiffs were bound to do the excavation needed to make the required drainage and to receive pay for same as therein provided for such work; or were they free to demand a new contract, or to do the work without a contract and claim upon the quantum meruit, or to refuse to do the work at all?

In its instruction (8th page 9), the Court concedes the right to omit from the work in plaintiffs' contract the trestle work shown on the profile, and to substitute earth work therefor, so as to make a continuous embankment. The object of that trestle was to admit the flow of water across the road; and with the ditching indicated on the profile provided means of drainage. But the omission of the trestling necessitated a change in the plan of drainage, and of course in the ditches indicated on the profile. That necessity was obvious to the plaintiffs when they entered into the contract; and both they and defendant then knew that should the trestling be omitted from their work, a change in the plan of drainage would be required so as to carry the water that would have passed through the trestling indicated in plaintiffs' work to the southerly end of the embankment and of their work. There would, of necessity, be a change in the place for the excavation, and perhaps also an increase of its quantity. And this work must be done either by the plaintiffs or under a new contract. Having provided in their contract for the change in the road-bed, it would be strange had they not intended to provide for this work which would necessarily result from it. Having provided for the ditching necessary while the trestling was in the road-bed, it is strange if the larger quantity required by the elimination of the trestling was wholly unprovided for in the contract. We think it clear that there was no such anomalous omission.

The specifications contain the following (p. 31):

"FORM OF PROPOSAL."

"Proposals will be received for the work in the following manner, prices being named separately for each section."

"GRADUATION."

"Excavation per cubic yard. Embankment per cubic yard."

(p. 34) "Graduation, General. Under this head will be included all excavations and embankments required for the formation of the road-bed, cutting all ditches and drains about or contiguous to the road . . . . and all other excavations connected with or incident to the construction of the said railroad."

(p. 35). "Classification—Excavations will be classified under the head of earth."

"Price for excavation—The contract prices for excavation will include all . . . . ditching."

(p. 39). "The quantities marked on profile are approximate and not binding. The relative amounts of trestle and earth-work may be changed at option of the engineer without prejudice. Contractors must satisfy themselves of the nature of the soil; of the general forms of the surface of the ground; of the quantities of material required for forming the embankments or other work, and of all matters which can in any way influence their contract, and no information on any such matters derived from the maps, plans, profiles, drawings or specifications, or from the engineer or his assistants, will in any way relieve the contractor from any risks or from fulfilling all the specifications and conditions of this contract."

The plaintiffs bid one price—(p. 48-49)—18 cents per cubic yard, for "excavation," in all the sections of their work—showing that neither the quantity, the location, nor the depth affected the price.

In his letter to plaintiff, accepting their bid, the chief engineer says (p. 111): "Your proposition of third instant to do the graduation, masonry, and trestling of the Henderson Bridge Railroad from station zero to station three hundred and thirty-third (333) in accordance with the specifications is accepted. This comprises all the work of the above character from sections one (1) to six (6) inclusive, and a portion of section seven (7)."

That letter of acceptance formed part of the contract of these parties, and shows it to have been their understanding that the proposition of plaintiffs to "do the graduation . . . . . of the Henderson Bridge Railway was intended to comprise all the work of the character from sections one to six inclusive, and a portion of section seven," —not what might be shown on any plan or profile, but what might be needed to complete the work, according to the "specifications."

The citations from the specifications show that the accepted bidder was to be bound to do all the work of the character for which he proposed "connected with or incident to the construction of the said railroad."

The "specifications" define "earth work" to include excavation as well as embankments; and the provision that "the relative amounts of trestle and earth-work may be changed at option of the engineer without prejudice," includes not merely the earth work in the embankments, but equally the amount of excavation.

The provision that "the quantities marked on the profile are approximate and not binding," also would authorize such a change in the plan of drainage as would increase the amount of excavation, as was done here, by twelve hundred cubic yards. To deny the defendants the right to make such alteration or to excuse the plaintiffs from the obligation to execute them it seems to us, would be to utterly ignore these provisions of the contract and to disregard its manifest spirit and purpose.

Then the plaintiffs were bound by their contract to do this work for the compensation therein provided, and were not free to refuse to perform it, and to negotiate for an increased price. We do not deny that if a new contract had been made with defendant it would have been binding, but we do deny that an agreement for an increased price made with an unauthorized subordinate, and never communicated to defendant nor even to its chief engineer, could release the plaintiffs from their contract, or give rise to a claim against the defendant.

In its instructions (8a and 8d, p. 82–83) the Court speaks of the defendant's substituting "a continuous ditch for the ditches defined upon the original profile," and of its requiring "a continuous ditch to be made."

There was no "continuous ditch" determined upon, or required to be made, nor actually made, other than as the connection of the borrow pits where not connected, and deepening them at rare intervals, made a continuous ditch. "A continuous ditch" would have required 35,761 cubic yards of excavation—the ditching determined upon and actually made, required 5,890 cubic yards of excavation. A continuous ditch would have increased the quantity of excavation by 31,000 cubic yards—the ditching actually done increased it by 1,130 cubic yards—the one might have been deemed a new enterprise; the other was a reasonable and contemplated modification of an old one.

We submit, therefore, that what the Court said about the continuous ditch was a misapprehension, and that these instructions are erroneous in so far as they hold that the alteration made was in excess of the contract, or "put the parties into a position for negotiation on the subject," or that "Mr. Mailhot, the engineer in charge, . . . had incidental authority to agree upon the price or mode of measurement."

The instruction (34) proceeds upon the idea that the embankment and a "continuous ditch" were to be made simultaneously, and that it was impracticable to distinguish the excavation done for the purpose of making the ditch, from that done to procure earth for making the embankment, and without reference to such ditch—and that peculiarity "introduced a new element into the problem" which must needs be provided for by a new contract. That idea rests upon a sheer assumption. There was no contract requiring the two to be constructed simultaneously. The evidence shows that the borrow pits were always wider and often deeper than the alleged ditch, and that they were dug without reference to it. It is true, as said in the instruction, that "if the parties were to make an embankment and ditch also it became desirable to take the dirt for the embankment from such localities as would be most effective in producing the ditch, and it necessarily resulted from this state of things that a party making embankment would, or might, at least, make embankment and ditch at the same time."

But for whom was that mode of operation "desirable"? Not for the defendant—for, to it, the modus operandi was immaterial, so that the result was accomplished. But as it is cheaper to handle earth once than twice it might have been desirable to the plaintiffs to haul earth excavated to make a ditch, a greater distance to put in the embankment, than they would have done but for this necessity of providing drainage. That they did, because it was cheaper than to waste the earth so handled, and dig the same quantity nearer the fill to be made—and not because of any requirement of the contract, or of the necessity of the case.

Nor is there any evidence that there was any difficulty in distinguishing the ditch from the borrow pits, or the excavation done necessarily to make the embankment from that done to make the ditch, or to effect the plan of drainage adopted after the omission of the trestle from the work of plaintiffs.

The evidence of Nichols, Hurlbert, Boucarron, and Putnam, all engineers, (p. 72–80) shows that the two kinds of excavation were easily distinguishable, while Bradford, also an engineer, testifies, (p. 81), that he actually made the measurements, and ascertained "the quantity of excavation made to make the ditch, extra the borrow pits." The new plan of drainage adopted did not, therefore, import "a new element into the problem," and the rulings of the Court based upon that assumption are of necessity erroneous.

These errors all result from not apprehending that plaintiffs were required to make a ditch merely to "drain the borrow pits." Say there is a borrow pit one-half mile long, wider than the required ditch and as deep, and another one-fourth of a mile long, and between the two some obstruction for twenty feet. The excavation to connect the two borrow pits would be a ditch to drain the borrow pits, but it could not be said that the borrow pits were any part of the ditch.

II.

The evidence relied upon to prove a contract with defendants in error for the compensation for the said ditch claimed by them was that of plaintiff, Wallace McGrath, who testified as follows (p. 71): "Mr. Hurlburt had charge of the work, as resident engineer of defendant. He was at plaintiffs' office the day after the letter of Mr. Nichols was received, and asked witness in presence of one of his partners if they had received the letter of Mr. Nichols, and said it would be necessary for us to make a continuous ditch from section three on easterly side of the road, so as to drain the borrow pits. I said we could not do that without compensation. He said we would be paid for that at the same price we had bid for excavation, and that it would be estimated from the top of the ground down."

There was no refusal to do the work for the price fixed for such work by the original contract. The remark of McGrath was simply a protest against doing it for no compensation; and the reply of Hurlburt was simply an expression of his opinion as to how it would be estimated. It is difficult to conceive upon what he based such opinion, since he neither had any information to that effect from any superior, nor testifies that it would be a reasonable compensation for what they actually did, to pay them for the amount of excavation claimed.

Nor does any one else testify that such compensation would be reasonable.

It is true he says: "I knew well that the plaintiffs expected to be paid for the work in the way I made the estimate." But he also says: "I told the plaintiffs all the time that the question of payment for the ditch would be determined by the chief engineer." We do not think the language of the parties indicates that he intended to make the impression that he was contracting for the plaintiff in error, as to the mode of estimating or the price to be paid for effecting the drainage directed, nor that the defendants in error so understood him. They simply took his word as to what would be done.

III.

The plan of drainage adopted after the elimination of the trestle from the road-bed, did not impose upon the plaintiffs any new kind of work, so as to require them to provide implements of a character not already required, or more costly material, or laborers of more skill, requiring higher wages. It required only that they excavate 1,230 cubic yards more of earth, worth, by the contract price, $221.40. It is not attempted to be shown that the excavation of this additional quantity of earth was more expensive than of the 4,680 cubic yards shown on the profile. Philip Fisher, an engineer introduced by them, testified (p. 74) that it was not. It was not, as the Court said, the introduction of a new problem, but simply a slight increase of the figures of the old problem. It was as though by the enlargement of the building, the mason was required to lay 250, instead of 225 thousand bricks. If the work was done without a new contract, without doubt the compensation for excavation would be only for the excavation actually done, and that would be at the rate fixed by the original contract.

2. Sutherland's damages, p. 499-503.

Conceding that plaintiffs had the right to demand a new contract, they must still have made a new contract with an authorized agent of defendant, or one which was ratified by it.

Hurlburt, a subordinate engineer, had no authority by virtue of his office to make such contract. The rule is, doubtless, as stated in 2 Wood's Ry. Law, (p. 448): "But merely by virtue of his position, and as an incident thereto, it cannot be presumed that an engineer has authority to bind the corporation by his contracts. His authority to do so must be established by proof of actual authority, or of facts from which such authority can be inferred."

In Fowle vs. Kansas Pacific Railway Co., (1 Colo., 479) one Rice had contracted to do certain work on the company's railroad, and his employes mistrusting his ability to pay had refused to work longer. The chief engineer told them to go on and complete the work and the company would pay them. Held, "there was no evidence of the agency of the engineer to make this promise relied upon; his official designation does not imply an authority in such matters, and the plaintiff's proofs were therefore defective in a material point."

Wallace McGrath, one of the plaintiffs, an intelligent and experienced engineer, with whom the contract alleged is claimed to have been made, testified (p. 74) that, "such authority as this did not belong to Mr. Hurlburt by virtue of his office. I supposed he had authority from the chief engineer for what he did."

There is no evidence in the case of any express authority given to Hurlburt to make such contract, but all the evidence upon that subject is to the contrary.

Hurlburt testified (p. 77): "I had no authority in regard to prices, further than the contract (gave him). I never informed them (plaintiffs) that I had any authority to change any prices or to make any contract with them."

F. W. Vaughan, the chief engineer, testified (p. 78-79): "I never gave Mr. Hurlburt any authority to make any agreement with plaintiffs for compensation for the ditch in question in this case, and never heard of the question being raised until they called for their final estimate. . . He had no authority, by virtue of his position, to make or change contracts."

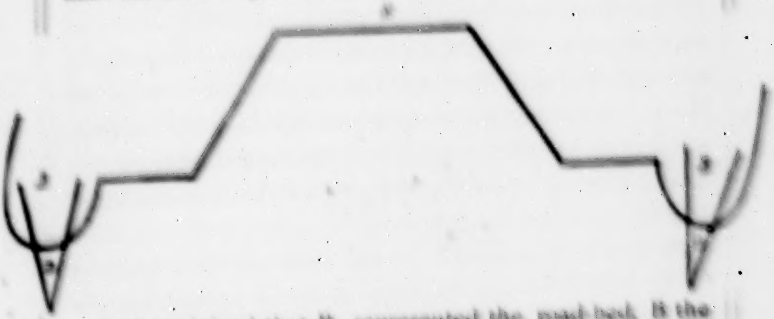
As to the scope of Hurlburt's duties he says (p. 79): "It was his duty to stake out the work, and overlook the construction, and return to me estimates of the work actually done."

The only evidence relating to the authority given Hurlburt, as to the matter in question is that of O. F. Nichols, his immediate superior, who states (p. 76): "The plan of drainage suggested in my letter to Mr. Vaughan was accepted by him, and Mr. Hurlburt was directed to have it carried out."

That did not enlarge the scope of his duties, beyond that defined by the chief engineer. It did not import an authority to contract for having the work done, nor was there any necessity for the assumption of any such authority. Nichols, his ranking resident engineer, was at Henderson. The chief engineer was of easy access, often at Henderson, and in frequent communication with them. So that if Hurlburt pretended to have authority to make such contract it was their fault that they trusted him.

They were further put upon inquiry by the fact that the compensation promised by Hurlburt was in direct violation of the provision of the specifications for the measurements of the earth-work, which is as follows (p. 64): "All earth-work will be measured in accordance with actual sections of finished roadway and adjuncts." That provision was explained by Mr. Boscarron, as follows (p. 79): "That means that the embankment was to be measured from actual cross-sections as built, and that the ditch was to be measured from the actual cross-sections as made. "Adjuncts mean ditches, drainage ditch, changing the channel of water courses, road, and farm crossings—in other words, all other graduation that is to be done, besides the roadway."

"Witness made and exhibited a diagram of a cross-section of the work of plaintiffs where the ditch was deeper than the borrow pits, which is here given:



And explained that R, represented the road-bed, B the borrow pits, and D the ditch extending below the borrow pits, and said that under the above provision of the specifications, only so much of the ditch as was not contained in the borrow pits could be measured."

In violation of that provision, by the agreement claimed with Hurlburt, the imaginary portion of the ditch within the borrow pits was also to be estimated, and plaintiffs took the risk of his having special authority to contract in the face of that provision.

Plaintiffs counted much in the trial on the fact that the quantities claimed for the ditch were obtained from a book made up by Hurlburt and returned by him to the office of Nichols, his superior, which said book was entitled on the back and inside, "Final Estimate" (p. 71); and that these quantities were given to them on their application in response to the following telegram from Nichols, (p. 70): "Henderson, Ky., April 2d, 1883. Can give quantities for sub-contractors any time to-morrow. Can you send down for them?"

With reference t~ that book, Hurlburt testifies (p. 78): "The contents of the book from which the quantities were taken by the witness Guthrie, and which book, entitled "Final Estimates," had been put in evidence, were not final estimates, but only the quantities furnished by him to the chief engineer, from which a final estimate could be made. Witness never made an estimate, monthly or final, and had no authority to do so. He only furnished the quantities to the chief engineer, who made the estimate of quantities and prices, or values."

And of the quantities for the ditch he says (p. 77): "The quantities for the ditch given to them from the book, were not an estimate of what excavation plaintiffs had done to make a ditch, but were the estimated contents of a continuous ditch, just as if the ground had not been broken, through the bottoms from one end to the other of the proposed ditch, and they include such portions of the borrow pits as are in the ditch."

And F. W. Vaughan, the chief engineer testifies (p. 79): "The monthly estimates provided for in the specifications were made out in our office at Louisville. Mr. Hurlburt took notes each month and returned an account of the work, and on these accounts the monthly estimates were made of the quantities and prices. Mr. Hurlburt had no authority to make a final estimate.”

There is no other evidence in the case, touching the character of the said book, and as by this it was not a final estimate nor made by the officer authorized to make a final estimate, the fact that the quantities for the ditch were taken from it gives them no force as against defendant.

There is nothing of estoppel in the fact that these figures were given to the plaintiffs. There is a conflict between the statements of the witnesses of what occurred when these quantities were given; but conceding the truth as to that to be with plaintiffs, as they paid no money to their subcontractors nor incurred any liability, on account of it, there is nothing to justify the claim that defendant is estopped to question their obligation or correctness.

Nor is there a scintilla of evidence that the agreement or promise of Hurlburt, or his interpretation of the contract, was ever ratified by the defendant. There is no evidence that any intimation of that agreement was made to any officer of defendant, until the 3d day of April, 1885, when plaintiffs Spellacy and Ryan went to Henderson to get the quantities of their work; when, as testified by Nichols, (p. 76) “they said they understood that they would be allowed for a continuous ditch over the whole line of the eastern side of the bank through the submerged country, exactly as though the ditch had been made.” Nichols then “reminded them that the borrow pits were to form part of the ditch, and that the actual work done by them in excess of this would be the most that could be entertained or allowed.”

Hurlburt testified that "he had never spoken to Mr. Vaughan, the chief engineer, about any statement he had made to plaintiffs with reference to payment for this continuous ditch, until after he had left defendant's service, after the 10th day of March, 1885."

No one of the plaintiffs intimates that he had ever communicated the matter to any agent or representative of defendant, before Nichols.

Spellacy, one of the plaintiffs, says (p. 73): "I do not think I ever said anything to Mr. Vaughan as to this agreement about the ditch until after this suit was brought. I then told him Mr. Hurlburt had agreed that we should have pay for this ditch, but he said he would not allow it."

McGrath, another of the plaintiffs, says (p. 72): "I was not here when the work was done. I demanded a final, formal estimate about the time I got back in April but did not get one. It was refused by Mr. Vaughan, because, as he said, we were not entitled to compensation for making borrow pits in shape to carry off water. I told him that Mr. Hurlburt agreed to pay for it. He said that Mr. Hurlburt exceeded his authority, and that he would not allow it."

Vaughan says (p. 78): "I first heard of this claim on the 12th day of April, 1885."

The whole of this work was let by plaintiffs to sub-contractors, and, it is a curious and significant fact that while no monthly estimate of it was allowed, or made by Hurlburt, there was no mention of it by either plaintiffs or their sub-contractors, to defendant's chief engineer. He testifies (p. 78) that "he had total charge of the work, through his assistants, and exercised a constant supervision over it; . . . supposes he was at the work two-thirds of the time while it was actually going on; was at Henderson the greater part of the year 1884, and saw Mr. Hurlbut almost every day while there; when not at Henderson was at Louisville or some convenient point, and kept up daily communication, by wire or otherwise, from the time the work was let, in July, 1884, until the 1st of June, 1885."

Mr. McGrath testified (p. 72): "Mr. Vaughan frequently communicated directly with witness. Witness had several interviews with Mr. Vaughan after the 26th August, 1884, and during the progress of the work; on one occasion came with him in his private car from Louisville to Henderson; had no conversation with him concerning this ditch."

After all this labored concealment of this agreement, by all the parties to it, from the superior agents and authorities of the defendant, it looks absurd to talk about estoppel or ratification.

There is nothing in the case but the dry legal questions (1) of whether the work done for effecting the plan of drainage adopted was within the original contract of plaintiffs, and if not (2) whether Hurlbut made, and had authority to make for defendant the agreement claimed by plaintiffs. And these questions we submit are against the plaintiffs and against the rulings of the Court thereon.

IV.

"PILE TRESTLE."

The approaches of the roadways and farm crossings on the easterly side of the embankment were made of "pile trestling." The plaintiffs allege "that during the progress of the work the defendant employed the plaintiffs to make the inclined approaches of the road and farm crossings on one side of their railroad of piling and trestle work, . . and, inasmuch as such work was not provided for in the profile and specifications on which plaintiffs had bid for the work, and was of a kind much more difficult to make than that contemplated in said profile and specifications, the defendant agreed to pay plaintiffs for the same, what the doing of such work was reasonably worth."

The defendant denies that there was any such agreement as that alleged, and claims that the piling in question was within the original contract.

There is no question but that these crossings were in the plaintiffs original contract. The question is whether it was intended that they should be, in any part, of trestling?

The Court says: "The profile and specifications show generally highway crossings across the track at different places, but there is no statement in the specifications or in the profile with respect to what kind of crossing it shall be, whether of earth or timber. There is a dispute between the parties arising out of this fact upon the question whether these bridges, made for the purpose of carrying highways over the embankment, are within the contract. The contract in that respect is ambiguous."

"The Court, looking at the contract, cannot say what kind of crossings was intended. There is no proof of custom, in this case, sufficient to settle this point. We are therefore left to the construction which the contractors themselves have adopted, as shown by their conduct under the contract."

"When parties have made an ambiguous contract, and have acted under it, and their joint actions show their understanding of it, courts and juries will follow the construction thus indicated."

The quantity of piling put in these crossings was 2,800 feet. The contract price was 30 cents per lineal foot, and 2,100 feet of this piling had, before this suit, been included in monthly estimates, and paid for, without objection, at that price. We submit that this was a construction of the contract by the acts of the parties, and that as to the remaining 700 feet they were both tied down to the terms of the original contract. The Court, however, held that these acts bound the parties only as to the portion of the piling paid for, but that they did not conclude them as to the 700 feet which had not been included in former estimates. As to these 700 feet it said to the jury: "If you find upon the proof that there was an agreement between plaintiffs and Mr. Hurlburt that these piles should be paid for at what they were reasonably worth, and not by the contract price, you may allow the reasonable value as shown by the proof on the subject."

That instruction is erroneous. (1). Because there is no evidence tending to show that Hurlburt made the agreement therein supposed.

Mathew Spellacy, one of the plaintiffs, testified: "Mr. Hurlburt ordered these approaches to be made. He said we would be paid for them. I told him it could not be done for the prices bid for the trestling in the roadway. He said he did not know anything about it, but that we would have to do it."

Edward Ryan, another of the plaintiffs, says (p. 83): "We had no contract for this work, and before we began it I had a conversation with Mr. Hurlburt about it. I wanted to know what we would be paid for it, and he said that Mr. Vaughan would do what was right. I said I supposed we would have to go to work and do it in order to get a final estimate. He said, yes; it will pay you to do it on that account if you do not get anything for it."

This evidence shows that Hurlburt understood that plaintiffs were bound by their contract to do this work, and that he did not intend to make any new agreement with them. His words do not import any agreement. He testified as follows (p. 86): "Witness was shown an estimate of plaintiffs' work for the month of February, 1885, receipted by plaintiffs and containing the following item: 'Secs. 3, 4, 5, 6, 7. Piles driven 2,103 lin. feet, 30 cents lin. foot, $630.90,' and stated that said item was part of the piling contained in the road crossings, and all driven by plaintiffs to that date. I supposed these crossings were made under the contract. I made no agreement, whatever, with the plaintiffs about them."

On cross-examination he said: "Plaintiffs never claimed that these crossings were not in their contract, and never refused to do it for the contract price. I never made any agreement to pay them more than the contract price, and never told Ryan they should be paid what it was worth. Ryan said it could not be done for the contract price, and I thought so myself. I had no authority to change prices or to make any contracts with plaintiffs except as specially authorized by Mr. Vaughan, the chief engineer."

And Vaughan says (p. 86): "That no agreement was made with plaintiffs by him, or by his authority as to any price for making the trestle, road and farm crossings, except their original contract for the work, and that until April, 1885, after the work was done, he supposed it was done under the contract and for the contract price for piling, and had no notice that they had asked anything more till then."

There was no other evidence upon the subject. The conversations between the plaintiffs and Hurlburt, interpreted as a contract, occurred not only before these monthly estimates, but before the work began. The effect of a monthly estimate is thus stated: "A contractor for the construction of a bridge on a railroad having received the monthly estimates, based upon a particular construction of his contract, without objection, will be held to have acquiesced in that construction, and to be bound by it." (2 Wood's Ry. Law, 998).

Having, without objection, received the monthly estimates for 2,100 feet out of 2,800 feet of piling at 30 cents per lineal foot, and nothing having since transpired between the parties upon the subject, we submit that the plaintiffs were tied down to the original contract and that it was error (1) for the Court to leave it to the Jury to allow them one thousand and fifty dollars for piling for which they were entitled to demand but two hundred and ten dollars. (2). The instruction was further erroneous because Hurlburt had no authority to make such agreement. It is not pretended that he had, or claimed, any special authority to do it. The instruction rests purely upon the proposition that a subordinate engineer, charged only with the direction and supervision of work in the field, has authority, *ex officio* to alter contracts already made or to make new contracts where any change or alteration of the work may be directed by his superiors. The claim here is that his superiors having determined upon the kind of work which was left undefined by the contract, he had authority to contract for the price.

We submit that by the authorities cited, as well as by the known rules governing in such case, this is error.

Counsel deem that on both branches of the case the rulings of the Court were erroneous, and respectfully ask a reversal of the Judgment.

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S. B. VANCE,
Attorneys for Plaintiffs in Error.

FILED
OCT. 2 [illegible]

Supreme Court of the United States

— OCTOBER TERM, 1889. —

No. ~~[illegible]~~ 63

The Henderson Bridge Company,

PLAINTIFF IN ERROR,

vs.

Wallace McGrath, Matthew Spellacy & Edward Ryan

IN ERROR TO THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF INDIANA.

BRIEF AND ARGUMENT

For Defendants in Error.

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D. B. KUMLER,

Attorneys.

No. [illegible]

Supreme Court of the United States.

THE HENDERSON BRIDGE COMPANY,

Plaintiff in Error,

v.

WALLACE McGRATH, et al.

In Error to the Circuit Court of the United States, for the District of Indiana.

BRIEF FOR DEFENDANTS IN ERROR.

The contract of defendants in error with the plaintiff in error for the building of the road way of the latter, was based on the profile and specifications. In a general way, the contract was for the construction of an embankment from the city of Evansville, Indiana, to a connection with the trestle approach to the railway bridge over the Ohio river at Henderson, Kentucky. The profile showed, at various places along the line, openings, of varying length, to be filled with trestles. Record page [illegible]. After the contract was let, it was determined by the Bridge Company to take out all this trestle work and make the embankment solid throughout its entire length. At the same time, and in consequence of this change, it was also determined to make a continuous drain or ditch, on one side of the embankment, along its entire length. There is no sort of question that this was fully determined upon by the Company. Mr. Nichols, one or the engineers, after going over the work, by direction of the chief engineer, wrote to the latter as follows: "We agree that a close bank should be used with drain pipes at few places only, and that the borrow pits on East side should form a drainage ditch from station one hundred twenty-seven to end of embankment, providing for carrying water off within these limits. * * * The drainage ditch could have a fall of nearly two feet to the mile and would take the place of the three county ditches within the limits named." Rec. p. 75. A few days later, Mr. Vaughan, the chief engineer, replied to this, fully approving the proposition to make such drain. Rec. p. 76.

Nichols was directed by Vaughan to notify the contractors that all the trestles would be omitted and the corresponding spaces filled with embankment. This was done by a letter set out in the record at page 70. The day after the receipt of this letter by McGrath, Spellacy and Ryan, Hurlburt, the engineer of the company, in actual charge of the work of construction, who had been instructed by the Bridge Company to have the ditch made, notified McGrath & Co. that they would be required to make a continuous ditch on the easterly side of the embankment, from section three to section seven, inclusive, which ditch should be two feet wide at bottom on section three, three feet wide on section four, and so on, increasing in size to the end. This drain, which was to carry off all the water in the prescribed area, and to take the place of three county ditches, is facetiously spoken of by counsel for the plaintiff in error as an "imaginary ditch;" and they really seem to suppose that the defendants in error were required to dig it without compensation, and as a part of the original contract.

A moment's consideration will demonstrate that this cannot be true.

No such ditch was shown on the profile, or provided for in the specifications on which the original contract was based. Rec. p. 74 (Testimony of Robinson). This alone would be decisive of the question, and would leave the construction of the ditch, as the learned judge correctly told the jury, a proper subject of negotiation between the parties. It is true the borrow pits were to form a part of the ditch, and, incidentally, would be drained by it; and counsel seem to suppose that because of this fact the only work necessary to be performed to construct the ditch was to excavate the earth between the ends of the borrow pits, and thus make a connection of the pits. But this contention is entirely unsound. The borrow pits are the excavations left at the sides of the roadway from which the earth has been taken to build the embankment. To dig these pits simply and wholly for the purpose of procuring the earth necessary for the embankment, and without any special regard to the size, shape, depth, or precise location of the pit, is one thing; to dig the pits so that they shall serve as parts of a continuous ditch, having a precise and definite location, fixed by the engineer, with a given depth and fall, and of given dimensions, is an entirely different thing, and one involving greatly increased expense. The specifications provide that the earth for the embankment is to be taken equally from each side. Rec. p. 65.

"If the specifications provided that the earth for embankment should be borrowed equally from both sides, and then a continuous ditch should be required to be made on one side of the embankment, it would necessitate a greater haul and would be more expensive. In consequence of the ditch a greater amount of earth would have to be taken from the side on which the ditch is made." Testimony of Fisher, page 74.

The vast difference between digging out the earth simply to make embankment, and digging it out so that the borrow pits shall form part of a prescribed ditch is still more forcibly illustrated by the following considerations. The profile, which is in the record, shows that the entire line of this work was embankment, which varies greatly in height at different points along the line. Of course, where the ground is high the embankment is low, and where the surface is low the embankment is high. Now, on the high ground, where but little embankment is required, the borrow pits, so long as they are simply dug out to get earth for the embankment, will be shallow; and on low ground, where a high embankment is required, the borrow pits will be deep. Yet this, which is the natural result of building embankment, must be exactly reversed when the pits are dug so as to form a ditch. On the high ground, where the pits would be naturally shallow, they must be deep, and the excavation must proceed to a much greater depth than is required for the embankment. This extra excavation becomes harder to make as the depth increases, (testimony of Fisher, page 74) and the extra dirt thus excavated must be hauled forward, at a greatly increased expense, to be put on the embankment where the ground is low, and where the borrow pits cannot be dug to the depth required for embankment, if they are to be part of a continuous ditch. In other words, the ditch level must be preserved, and the borrow pits so dug as to preserve that level. That this necessitated extra haul and greatly increased expense is perfectly clear from the testimony.

McGrath testified that "to make the borrow pits serve for a ditch it was necessary to haul the earth from the high ground, where the embankment was low, to the low grounds, where the embankment was high, whereas, but for the ditch, the earth for embankment would have been taken directly from the sides; that this in many places necessitated a longer haul of the earth, and increased the cost of the embankment. Pp. 71, 72.

Wasson, a sub-contractor, in building certain embankment, "had taken earth from borrow pits about twenty inches deep, and afterwards had to dig to the depth of nine feet to make the ditch, and was required to haul this extra excavation, some of it, six hundred feet." Pp. 73, 74.

Robinson testified that "if the work was changed so as to require a continuous ditch, it could not be done as cheaply as if done as provided for in the specifications, because where the embankment would be low you would have to make a shallow borrow pit, and in making a continuous ditch you would have to deepen that borrow pit to bring it to the ditch level, and would have to carry the dirt forward, necessitating a haul. There was no continuous ditch contemplated in the profile of the work." P. 74.

We have, therefore, in this record these undoubted facts: That Mr. Nichols, an engineer of the Bridge Company, proposed to the chief engineer the construction of a ditch or drain, extending substantially along the entire length of one side of the embankment, having a fall of two feet to the mile, providing for carrying off all the water within that area, and of sufficient capacity to take the place of three county ditches. That the chief engineer approved this proposition. That no such ditch was shown on the profile or embraced in the specifications which formed the basis of the original contract; and that the construction of such a ditch greatly increased the cost of constructing the embankment. Under this state of facts, is it not apparent that the learned judge at circuit was perfectly correct in saying to the jury that the construction of this ditch was a proper subject for negotiation between the parties?

Now, Mr. Hurlburt, the engineer of the plaintiff in error, who was actually on the ground and had charge of the work of construction, was ordered and authorized to have this ditch made. Mr. Nichols testified that "the plan of drainage suggested in my letter to Mr. Vaughan was accepted by him, and *Mr. Hurlburt was directed to have it carried out*. Rec. p 76.

One moment's consideration of this testimony would have demonstrated to learned counsel for plaintiff in error the fallacy of their elaborate argument that Hurlburt did not have authority to make a contract for the construction of this ditch. That argument proceeds upon the assumption that the Court deduced the authority of Hurlburt to make such a contract simply from the fact that he was an engineer of the Bridge Company; and it is urgently insisted that a subordinate engineer has no such power. But the Court made no such ruling, and the argument loses sight of the vital, the controlling fact, that Hurlburt was ordered to have the ditch made. The exact language of the instruction excepted to is as follows:—

"So when they [the Bridge Company] determined to require this continuous ditch to be made it necessarily put the parties into a position for negotiation on the subject, and Mr. Hurlburt, the engineer in charge, *being authorized to have this ditch constructed*, had incidental authority to agree upon the price or mode of measurement." P. 82. That is, the court said to the jury, in effect, that an agent authorized and directed to have certain work performed, has the implied authority to make the necessary contract for its performance. This is perfectly clear. It is the settled law that an agent appointed to do an act, is clothed, as a necessary incident, with the power to do whatever is necessary and usual for the accomplishment of that act. The business of civilized world could hardly be carried on at all, if this principle did not obtain. Mr. Story states the rule with great clearness, and with abundance of illustration.

"But whether it [the authority of an agent] is conferred in the one way or in the other, it is, unless the contrary manifestly appears to be the intent of the party, always construed to include all the necessary and usual means of executing it with effect." Story, on Agency, Sec. 58, et. seq.

And again: "In the next place as to the incidents which are implied by law from the direct or principal authority. We have already had occasion to state that every such authority carries with it, or includes in it, as an incident, all the powers which are necessary, or proper, or usual, as means to effectuate the purposes for which it was created. In this respect there is no distinction whether the authority given to an agent is general or special, or whether it is express or implied. In each case, it embraces the appropriate means to accomplish the desired end." Ibid. Sec. 79.

Illustrations of this principle might be multiplied almost indefinitely. They are as diversified as the numberless subjects of agency. Thus, authority to discount paper implies the authority to endorse, "as whenever an agent is empowered to do a particular thing, he is also empowered to use the means necessary to accomplish it."

Merchants' Bank v. Central Bank, 1 Georgia 418.

Power to borrow money and purchase supplies for a railway company implies the authority to give the usual securities for the borrowed money or the purchases.

Hatch v. Coddington, 95 U. S. 48.

An agent appointed to travel and sell goods, has the implied authority to hire horses for his transportation from place to place, and to charge his principal with such hire.

Bentley v. Doggett, 51 Wis., 224.

Huntley v. Mathias, 90 N. C., 101.

Health officers empowered to remove infected persons to a pest-house have implied authority to hire nurses for such infected persons.

Labrie v. Manchester, 59 N. H., 120.

A station agent, authorized to receive and forward freight, has implied authority to contract to furnish a certain number of cattle cars at his station, on a specified day.

Harrison v. R. R., 74 Mo., 364.

In Kane v. Cortesy, 100 N. Y., 132, it was held that where an owner of a real estate mortgage empowered an agent to procure additional security from the debtor, leaving it to the judgment of the agent to make the best arrangement he could to secure that object, that this clothed the agent with the power to make a valid agreement for an extension of time, such as would release sureties, although made without the knowledge or consent of the owner of the mortgage.

The case of Damon v. Inhabitants of Granby, 2 Pick., 345, is instructive, and entirely in point. It was there held that a committee chosen by a town to procure a master builder and superintend the building of a meeting-house for the town, had power to make contracts for the building of the house. The court, in disposing of this particular point, at page 351, use this language: "It was objected at the trial that the superintending committee, as such, had no power or right to enter into the contract for building the meeting-house, either by deed or otherwise, and the second issue was framed to try this question. We think that the vote of the inhabitants gave to this committee authority to enter into the contract. To *superintend* the building of the house includes the power to make the necessary contracts, since it does not appear that any other committee or agent was entrusted with this power, and since the making of contracts is essential to the building of the house."

It is useless to multiply words. The court correctly told the jury, in the instruction already quoted, that Mr. Hurlburt, the engineer in charge, *being authorized to have the ditch constructed*, had incidental authority to agree upon the price and mode of measurement."

This clear and emphatic statement of the source of Hurlburt's authority to make a contract for the ditch having been stated at the outset, it was not necessary that the court should repeat it, with exact accuracy, in every subsequent instruction. The instructions must be taken as a whole, and in the light of evidence. The incontestable evidence is that Hulburt was instructed to have "this plan of drainage carried out." The incontestable law is that this clothed him with complete authority to make a contract for the construction of the ditch. If, therefore, the jury believed that Hurlburt made the contract for the construction of the ditch, as claimed by the plaintiffs below, then a correct result was reached, even if certain detached sentences of the instruction are open to criticism, as not stating fully the source of Hurlburt's authority. But the instructions, taken as a whole, and read in the light of evidence, are correct. For example, the next instruction excepted to is in this language:

"And so I instruct you, *upon the facts as they appear without dispute*, that it was within the power of Mr. Hurlburt, the resident engineer, who was superintending the construction of the work, to make a contract with the plaintiffs * * * for the making of this ditch," etc.

This was entirely correct. "The facts, as they appeared without dispute," were that the Bridge Company had determined to make a ditch not provided for in the original contract, and that Hurlburt had been instructed to carry out that resolution.

No question is made as to the fact that the Bridge Company determined to have this ditch constructed. The learned judge so instructed the jury. (Rec. p. 82, Instruction 8a.)

Again, this instruction is excepted to, viz:

"From the duty imposed upon him as resident engineer of the defendant, arose Mr. Hurlburt's power to make an adjustment of the question. Plaintiffs claim he did make arrangements with them by which it was agreed that the portion of excavation to be regarded as such should be considered as starting from the lower level of the ditch along its whole length, and be measured at a certain slope to the surface of the earth, as it was before work was commenced; and upon that they claim 37,256 cubic yards of excavation as ditch. Defendants claim that Hurlburt did not make any such agreement, and this is an issue of fact which the jury must determine from the evidence. I will say, however, that ***under the circumstances*** Mr. Hulburt did have the power to make the agreement, if he saw fit to do so."

Now, it is perfectly evident, from the very framework of this language, that it must be read in connection with all that has gone before. To single out the first sentence of this instruction, detach it from the body of the instructions, and

claim that it deduces Mr. Hurlburt's authority to contract for the ditch solely from his position as engineer, is unwarrantable criticism. Only a minute before, the jury had been told distinctly that Mr. Hurlburt's authority to make a contract with the plaintiffs below, for the digging of the ditch, resulted as an incident from the general power conferred upon him to have the ditch constructed. So that, when the learned judge, almost immediately afterwards, said to the jury that "from the duty imposed upon him as resident engineer of the defendant arose Mr. Hurlburt's power to make an adjustment of the question," he meant, of course, and was understood by the jury to mean, that the "duty" imposed was that of having this ditch constructed, as well as that of general superintendence. In the closing part of the instruction, this power of Hurlburt to make the contract is said to exist "under the circumstances." In other words, taking the whole instruction together, it is equivalent to saying to the jury that the power of Mr. Hurlburt to make the contract in question springs from the duty imposed upon him, as the resident engineer, under all the circumstances of this particular case. When such an instruction is read in the light of the evidence, and in its proper connection with the whole body of the instructions, it is perfectly clear that the jury were not misled as to the true source of Hurlburt's authority to enter into the contract in question. They knew all the time that his power to enter into the contract did not result simply from his position as engineer, but from the added fact that he was empowered to have the ditch constructed.

As was said in Evanston v. Gunn, 99 U. S., 660: "Sentences may, it is true, be extracted from the charge which, if read apart from their connection, need qualification. But the qualification was given in the context, and the jury could not possibly have been misled."

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Further along in the instructions, the court, in speaking of another subject, was careful to warn the jury against inferring any power in Hurlbut to make contracts, arising simply from the fact that he was an engineer. This emphatic language was used:

"A subordinate engineer working in behalf of a corporation, as Mr. Hurlburt was, has no right to waive the effect of receiving pay upon monthly estimates under a contract like this. Such a contract would have but little force or value, if a subordinate agent has the power to waive the terms," etc. Rec., p. 87.

It is perfectly clear, from the whole of the evidence, that Mr. Hurlburt was directed to have the ditch constructed, and that the Bridge Company expected to pay for it. Mr. Hurlburt at once assumed that he had full authority, and made the contract. McGrath testified that "Hurlburt said it would be necessary for us to make a continuous ditch from section 3, on the easterly side of the road, so as to drain the borrow pits. I said we could not do that without compensation. He said we would be paid for that at the same price we had been paid for excavation, and that it would be estimated from the top of the ground down." Rec., p. 71.

The effort of learned counsel to treat this merely as a protest on the part of McGrath, and an expression of opinion by Hurlburt as to what would be done, is ingenious, but entirely untenable. In view of the admitted fact that no such ditch was shown on the profile or provided for in the specifications, it is clear that this was a distinct contract for the making of the ditch, fixing the price and the mode of measurement. It is a mistake, also, to say that this is the only testimony on the subject. Mr. Spellacy testified that "Hurlburt said a continuous ditch would have to be made from section 3 to section 7, and that we would be allowed for this ditch as excavation, estimated from the surface down, for the full size of the required ditch." P. 72.

Mr. Ryan testified: "I was present when Mr. Hurlburt notified us that we would have to make a continuous ditch. He said we would get excavation prices for it" (p. 73); and Mr. Wasson, a sub-contractor, testified that when he was making a long haul of the extra excavation made necessary by the construction of the ditch, Mr. Hurlburt said to him, "Wasson, you get pay for the excavation, and can afford to haul it." P 74.

The ditch was located by Mr. Hurlburt, or his assistants, and the work was done under his direction. P 72. He gave the contractors the precise dimensions and slope of the ditch. P. 70. Not only so, but a monthly estimate of the amount of excavation made each month in the construction of the ditch was kept by Nichols and Hurlburt in a book labelled "Final Estimate," which was put in evidence (p. 71); and when the defendants in error applied to him from time to time to return to them the monthly estimates of this excavation, he always assured them that it would be paid in a lump at the completion of the ditch, and that the reason for not returning the estimate monthly was that the ditch could not be considered a ditch until completed; and that this was in accordance with the instructions from Mr. Vaughan, the chief engineer. (Testimony of McGrath, p. 72; testimony of Spellacy, p. 72; testimony of Ryan, p. 73.) Hurlburt himself testified that "no part of that ditch was included in the monthly estimates. I told them it was not a ditch until it was cut all the way through." P. 77. He also testified that the ditch was necessary, and that he expected the company to pay for it. P. 78.

After the ditch was completed, Nichols, an engineer of the Company, notified McGrath, Spellacy and Ryan by telegram (P. 70) that he was now ready to give them the full estimate of the excavation, in order to enable them to settle with their sub-contractors. In response to this Spellacy, Ryan and the witness Guthrie, went to Henderson. Nichols directed an assistant to give to them the estimates of the excavation made in constructing the ditch, and the assistant read off to them that estimate, section by section, from the book labeled "Final Estimate," as set out in the record on page 71.

In the face of this evidence, how can it be doubted that the plaintiff in error ordered the construction of this ditch, as a thing separate and apart from the original contract, and that they expected to pay for it? How can it be doubted that the instructions on this subject, taken as a whole, are correct, and that the verdict of the jury was just?

II.

The remaining exception relates to an instruction given the jury on the subject of certain trestle work built by the defendants in error, and forming approaches to the embankments, at various points, for road crossings and farm crossings.

The profile indicated these crossings, but it did not indicate, nor, in the opinion of the circuit judge, did the specifications state, of what material they were to be constructed. The court told the jury that the contract in that respect was ambiguous; and, there being no proof of custom, that "we are therefore left to the construction which the contractors (i. e. the contracting parties) themselves have adopted, as shown by their conduct under the contract." Pp. 86-87. This part of the charge is not excepted to.

Manifestly, therefore, when the Bridge Company determined to make their approaches of trestle work, it was open to the parties to enter into a contract as to the price to be paid for that work; and, in the absence of any express contract, the parties performing the work could recover for it upon a *quantum meruit*. There is no pretense that the original contract provided for the construction of these crossings by trestle work. Under these circumstances, Mr. Ryan testified:

> "Those bridges for road crossings were put in by me.
>
> * * * *
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> We had no contract for this work, and before we began it, I had a conversation with Mr. Halburt about it. I wanted to know what we would be paid for it, and he said that Mr. Vaughan (the chief engineer) would do what was right." Rec., p. 85.

It matters not whether Halburt was authorized to say this or not. The law says it for him. That the parties performing this work should be paid what was reasonable and right for it, is what the law implies.

With this understanding with Mr. Hurlburt, the work was done. It appeared in evidence that the defendants in error had been paid for certain work of this character put up by them in the month of February 1885, amounting to 2015 lineal feet, at the rate of 30 cents per foot, and that they had received and receipted for that amount. As to about 700 lineal feet, being the measurement of other trestle approaches not done in the month of February 1885, it was admitted that the plaintiff below had been paid nothing. They were therefore unquestionably entitled to the reasonable value of this 700 feet, and the jury so found. But it was gravely insisted below that because the contractors had received pay for the trestle approaches built in the month of February

1885 at the rate of 30 cents per lineal foot, therefore they were conclusively bound to accept 30 cents per lineal foot for all other trestle approaches built by them, no matter when, or where, or under what circumstances of difficulty or expense. The learned judge very properly refused to concur in this view, but instructed the jury, in substance, that whilst the receipt by the plaintiff below of a given price for certain work done was conclusive on them as to that particular work, yet, as to the 700 feet which remained unpaid for, they were entitled to recover what that work was reasonably worth. P. 87, par. 7.

Why should the fact that the contractors had received and receipted for a sum of money representing 30 cents per lineal foot for certain trestle approaches built by them at a particular time, bind them conclusively to accept that price for all other trestle approaches? There is no element of estoppel involved. There was no fixed contract price for this work. The evidence is abundant that this particular work was worth much more than 30 cents per foot. The acceptance under these circumstances of 30 cents per foot for the trestle work shown in the estimate for February, 1885, amounted to nothing more than saying (under pressure) "we agree for the present, and for this particular work, to accept that price." That is the whole of it. It was not a contract to accept the same price for building other approaches in the future. It was not a contract at all. It was simply the receipt of a sum of money, unaccompanied by any declaration, assurance, or agreement whatever.

The whole contention of the plaintiff in error on this proposition is based upon the fallacious assumption that there was a contract price for this work, and that it was provided for in the original contract. Thus, counsel for the plaintiff in error asked the court to instruct in these words:

"Where any of the work done by plaintiff and sued for in their complaint has been included in any of the monthly estimates of such work read to them, and such work is therein valued *at the contract price*, such fact is conclusive evidence that such work was done *under the contract*, and the prices then fixed are final and conclusive." P. 58.

It must be repeated that there was no such thing as a contract price for this work, and that it was not provided for in the original contract at all. In fact, the court told the jury this, in that part of the instruction to which no exception was taken. These crossings were indicated on the profile, but the materials of which they were to be built, and the price to be paid, were wholly blank. Manifestly therefore, the instruction prayed was wrong, and was properly refused. The only contract that ever existed, as to these crossings, was that made with Hurlburt, when he assured the contractors that they should have what was right; and this, as before suggested, was only what the law would imply, in the absence of any contract whatever. On the basis of a *quantum meruit* the case, as to this work, went to the jury, and on that basis the verdict was correctly rendered.

The farm crossings and road crossings now under consideration must not be confounded with certain bridges of trestle work originally provided for in the line of the railway proper. The contract did fix the price for these trestles, but they were never in fact built, for the reason that the company dispensed with them at the begining of the work, and filled the spaces with solid embankment. The fact, therefore, that the contractors agreed for a fixed price to build certain trestle bridges in the line of the embankment, which, by direction of the company, were never built, has no bearing on the subject in hand. It did not imply an agreement to build certain other, and vastly different timber work, not provided for in the contract, at the same price. The evidence is perfectly clear that the construction of the trestle approaches was much more difficult and expensive than the building of trestles of uniform height, in the line of the roadway, would have been. Mr. Conkey, a railway contractor, testified: "It would cost double or more to drive the piling for these crossings than it would to drive the piling for the trestles in the road way as indicated on the profile." P. 85. Philip Fisher, a civil engineer, testified that "it would be worth four times as much per foot to drive the piling for the road and farm crossings as that in the roadway as originally intended." P. 86. Hurlburt himself testified that this work could not be done for the contract price of trestling. P. 86.

The attempt to connect this work, not provided for in the original contract, with other trestle work of a totally different character, which never was built, is futile. It tends to create confusion where there really is no obscurity whatever. The fact that the original contract did not provide for trestle work, at those crossings is decisive of this question.

Indeed, although a correct result was reached in the instructions, the learned judge stated the case too strongly against the defendants in error in saying that the specifications do not indicate the material of which the road crossings were to be made. The specifications (p. 34) are divided into three parts; that is, the entire work is considered under three general heads of Graduation, Masonry, and Trestling. The specifications then proceed:

"Graduation—Under this head will be included * * * the excavation and embankment necessary for the reconstructing of turnpikes or common roads, in cases where they are interfered with in the formation of the railroad."

Under the same head, subdivision "Excavations," the following provision is made:

"The contract prices for excavation will include all * * road crossing" (p. 35).

Under the head of Trestling, marked "Pile Trestle," nothing is said of road or farm crossings.

It is apparent from this that the specifications contemplated the construction of these crossings out of earth, and did not contemplate the building of bridges on one side of the embankment. Ryan was perfectly right when he testified that "we had no contract for this work." The contractors had a perfect right to assume that the crossings were to be made of embankment. It is matter of common knowledge that they are usually made in that manner. The answer of the plaintiff in error (p. 29) distinctly places this construction on the specifications, and claims that both road crossings and farm crossings are provided for under the head of "Graduation." In the specifications, nothing is treated of under "Graduation," except earth work—excavation and embankment—and their usual accessories. Indeed, the three sub-divisions under this head are "Clearing and Grubbing," "Excavations," and "Embankments." (Pp. 34, 35.)

There is, therefore, no ground for the contention that the specifications contemplated that on one side of the roadway the crossings should be made, not with embankment, as is usual, but by the building of bridges, resting on driven piles—in other words, trestle work. If the specifications had intended this, such structures would have been provided for under the head of "Pile Trestle," where they would naturally and necessarily have belonged.

In this view, the statement in the instruction that the specifications do not indicate of what material these cross-